VPR-3

Schematics

Vol. II

Ampex Corporation

Catalog No. 1809642-04
Issued: September 1985

VPR-3
VIDEO PRODUCTION RECORDER

VOLUME 2

PARTS LISTS AND SCHEMATICS

AMPEX CORPORATION
AUDIO-VIDEO SYSTEMS DIVISION

Prepared by

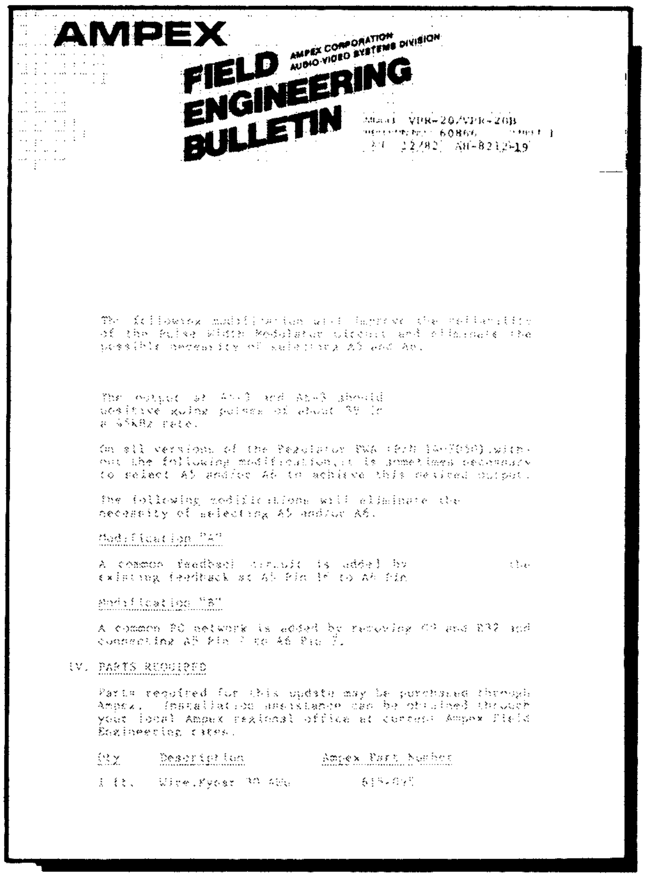
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Ampex Corporation
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Redwood City, CA 94063

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Issued: September 1985

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AMPEX CORPORATION AUDIO-VIDEO SYSTEMS DIVISION
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To receive these bulletins, send us the following information:

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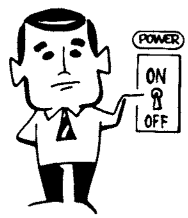
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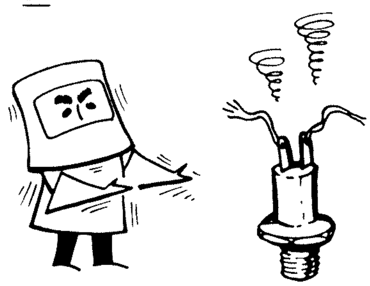
SAFETY AND FIRST AID SUGGESTIONS

Regardless of how well electrical equipment is designed, personnel can be exposed to <u>**dangerous electrical shock**</u> when protective covers are removed for maintenance or other activities. Therefore, it is incumbent on the user to see that all safety regulations are consistently observed and that each individual assigned to the equipment has a clear understanding of first aid related to electrical hazards.

In addition, the following safety practices must be followed:



1 Do not attempt to adjust unprotected circuit controls or to dress leads with power <u>on</u>.



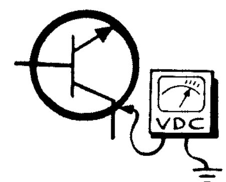
2 Do not touch heavily loaded or overheated components without precaution to avoid burns.



3 Do not assume that all danger of electrical shock is removed when power is <u>**off**</u>. Charged capacitors can retain dangerous voltages for a long time after power is removed. These capacitors should be discharged through a suitable resistor before any circuit points are touched.



4 Always avoid placing parts of the body in series between ground and circuit points.



5 Remember that some semiconductor cases and solid-state circuits carry high voltages.



6 Don't take chances. Be fully trained. Ampex equipment should be operated and maintained by fully qualified personnel.

If someone seems unable to free himself while receiving an electrical shock, <u>**turn power off**</u> before attempting to render aid. A muscular spasm or unconsciousness can make a victim unable to free himself from the electrical power.

WARNING

DO NOT TOUCH VICTIM OR HIS CLOTHING BEFORE POWER IS REMOVED OR YOU MAY ALSO BECOME A SHOCK VICTIM.

If power cannot be removed immediately, <u>**very carefully**</u> loop a length of dry nonconducting material (such as rope, insulating material, or clothing) around the victim and pull him free of the power. Carefully avoid touching him or his clothing until free of power. Immediately start the appropriate first aid procedures.

GOOD PRACTICES

In maintaining the equipment covered in this manual, please keep in mind the following standard good practices:

1 When connecting any instrument (oscilloscope, waveform monitor, etc.) to a high-frequency output, use the appropriate termination resistor at the input of the instrument, unless the instrument is terminated internally.

2 When inserting or removing printed wiring assemblies (PWAs), cable connectors, or fuses, always turn off power to the affected portion of the equipment. After power is removed, allow sufficient time for the power supplies to bleed down before reinserting PWAs.

3 When troubleshooting, remember that FETs and other metal-oxide-semiconductor (MOS) devices may appear defective because of leakage between traces or component leads on the printed wiring board. Clean the printed wiring board and recheck the MOS device before assuming it is defective.

4 When replacing MOS devices, follow standard practices to avoid damage caused by static charges and soldering.

5 When removing components from PWAs (particularly ICs), use care to avoid damaging PWA traces.

WARNING

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case, the user, at his own expense, will be required to take whatever measures may be required to correct the interference.

INTRODUCTION

This manual contains parts lists and schematics for the VPR-3, Video Production Recorder, reflecting the 5.2 software, Ampex Assembly Number 1467000.

Four indexes list the assemblies and schematics as follows:

- **Indentures List of Assemblies** — List of assemblies in sequence of appearance in the manual.
- **Numerical List of Assemblies** — List of assemblies in numeric sequence.
- **Numerical List of Schematics** — List of schematics in numeric sequence.
- **List of Schematics by PWA Number** — List of schematics in PWA numeric sequence.

ORDERING INFORMATION

This manual is one of two manuals containing parts lists and schematics for the VPR-3, Video Production Recorder.

To order additional manuals, use the following catalog numbers:

1809641 VPR-3 Parts Lists and Schematics VOLUME 1

1809642 VPR-3 Parts Lists and Schematics, VOLUME 2

If a complete set of manuals (Volumes 1 and 2) is to be ordered, use Catalog Number 1809640.

Note: This issue of the manual reflects the documentation as of 16 July 1985.

INDENTURED LIST OF ASSEMBLIES

VOLUME 1

INDENTURED LIST OF ASSEMBLIES
(Continued)

VOLUME 1

INDENTURED LIST OF ASSEMBLIES
(Continued)

VOLUME 1

INDENTURED LIST OF ASSEMBLIES (Continued)

VOLUME 1

INDENTURED LIST OF ASSEMBLIES (Continued)

VOLUME 2

NUMERICAL LIST OF ASSEMBLIES

NUMERICAL LIST OF ASSEMBLIES
(Continued)

NUMERICAL LIST OF ASSEMBLIES
(Continued)

NUMERICAL LIST OF ASSEMBLIES
(Continued)

NUMERICAL LIST OF SCHEMATICS

NUMERICAL LIST OF SCHEMATICS
(Continued)

LIST OF SCHEMATICS BY PWA NUMBER

ITEM NO.	PART NUMBER	DESCRIPTION		REF DESIG	-01	-02	-03	-04	-05	-06	-07	-08
1	1467060-06	PWA, PLAYBACK SYNC			1	1	-		-	-	-	-
2	1467063-02	PWA, PLAYBACK SYNC	1			-			1	1	1	1
3	1467070-05	PWA, AST SERVO	1		1	1			1	1	1	1
4												
5	1467080-02	PWA, AUDIO			3	-	-		-	-	-	-
6												
7	1467120-12	PWA, AUDIO CONTROL	1		1	1			1	1	1	1
8												
9	1467223-08	PWA, TAPE REMAINING	1			1			1	-	-	-
10												
11	1467200-08	PWA, CONTROL	1		1	1			-	-	-	-
12												
13	1467210-01	CHASSIS, ELECTRONICS MOTHERBOARD			1	1	1		1	1	1	1
14												
15	1467080-06	PWA, AUDIO				2	2		-	-	-	-
16	1467106-03	PWA, AUDIO 3					1		-	-	-	-
17												
18	1467083-14	PWA, AUDIO					-	3	3	3	-	-
19												
20	1467106-06	AUDIO						1	1	-	-	-
21	1467203-04	PWA, CONTROL	1									1
22	1467086-01	PWA, AUDIO	1								3	3
23												
24												
25												
26												
27												
28												
29												
30												
31		NOTES:										
32		1 STATIC SENSITIVE, SPECIAL HANDLING REQUIRED										
33		PER AMPEX STD HE1-1.										
34												
35												
36												
37												

LM-1467260

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1	1467211-01	PLATE, CARD GUIDE, ELECTRONIC BAY		2
2	1467212-AA	PLATE, SIDE CARD CAGE, ELECTRONIC BAY		1
3	1467212-AB	PLATE, SIDE CARD CAGE, ELECTRONIC BAY		1
4	1467213-AA	GUIDE, ENTRANCE, ELECTRONIC BAY		1
5	1467213-AB	GUIDE, ENTRANCE, ELECTRONIC BAY		1
6	1467214-01	CONTACT STRIP		2
7	1467215-01	PLATE, BACKING CONTACT STRIP		2
8				
9	1467250-01	CIRCUIT BREAKER ASSY		1
10				
11				
12	1467240-08	PWA ELECTRONIC MOTHER BOARD		1
13				
14				
15				
16	475-058	SCREW, PAN HD., #6-32 X .375 LG		47
17	472-482	SCREW, CAP, BUTTON HD., BLK, #6-32 X .250 LG		12
18	475-094	SCREW, PAN HD., #6-32 X .50 LG		1
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				

LM-1467210

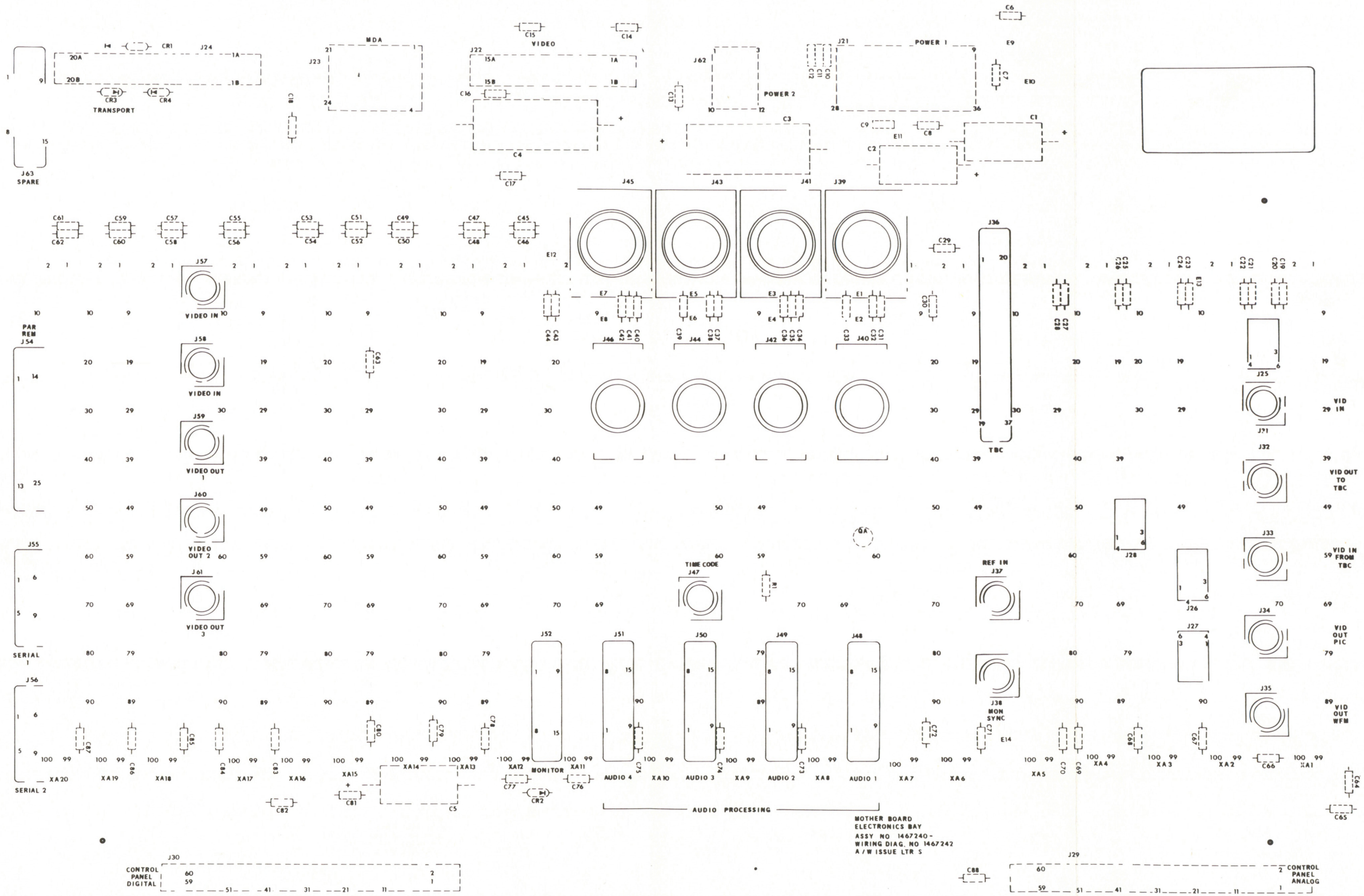
ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07	-08
1											
2											
3	1467242	WIRING DIAGRAM		D	F	G	J	K	L	M	N
4	1467249-01	INSULATOR, AUDIO CONNECTORS		4	4	4	4	4	4	4	4
5	1467250-01	CIRCUIT BREAKER ASSEMBLY		1	1	1	1	1	1	-	-
6	1467383-01	PANEL, AUDIO CONNECTORS		1	1	1	1	1	1	1	1
7											
8	064-316	CAPACITOR, CER., MONO, 2.2uF, 50V, 20%	C9,10,11,12	4	4	4	4	4	4	4	4
9											
10	064-653	CAPACITOR, CER., MONO, .1uF, 50V, 20%	C6,7,8,13-88	79	79	79	79	79	79	79	79
11	063-247	CAPACITOR, ALUMINUM, 1000uF, 16V, $^{-10}_{+100}$%	C1,2,5	3	3	3	3	3	3	3	3
12	063-445	CAPACITOR, ALUMINUM, 1000uF, 35V, $^{-10}_{+35}$%	C3,4	2	2	2	2	2	2	2	2
13											
14	013-678	DIODE, POWER, CD451	CR1,2,3,4	4	4	4	4	4	4	-	-
15	013-678	DIODE, POWER, CD451	CR1-5							5	5
16											
17	066-668	RESISTOR, CF., 4.7K, .25W, 5%	R1	1	1	1	1	1		1	1
18											
19											
20											
21											
22	135-437	HEADER ASSEMBLY, 6 POSTS, RT ANGLE	MBJ25,26,27,28	4	4	4	4	4	4	4	4
23											
24											
25	135-456	HEADER ASSEMBLY, 60 POSTS, STRAIGHT	MBJ29,30	2	2	2	2	2	2	2	2
26											
27											
28	140-269	CONNECTOR, SIGNAL CKT, RECEPT, RECT, 36 PIN	MBJ21	1	1	1	1	1	1	1	1
29	140-667	AUDIO, 3 SOC	MBJ39,41,43,45	4	4	4	4	4	4	4	4
30	140-670	AUDIO, 3 PIN	MBJ40,42,44,46	4	4	4	4	4	4	4	4
31											
32	139-802	RECT, 24 PIN	MBJ23	1	1	1	1	1	1	1	1
33	140-729	1 COAX SOC	MBJ31-35,37, 38,47,57-61	13	13	13	13	13	13	13	13
34	140-735	PLUG, 15 PIN	MBJ48,49,50,51	4	4	4	4	4	4	4	4
35											
36	140-736	RECT, 9 SOC	MBJ55,56	2	2	2	2	2	2	2	2
37	140-737	CONNECTOR, SIGNAL CKT, RECEPT, RECT, 15 SOC	MBJ52,63	2	2	2	2	2	2	2	2

LM-1467240

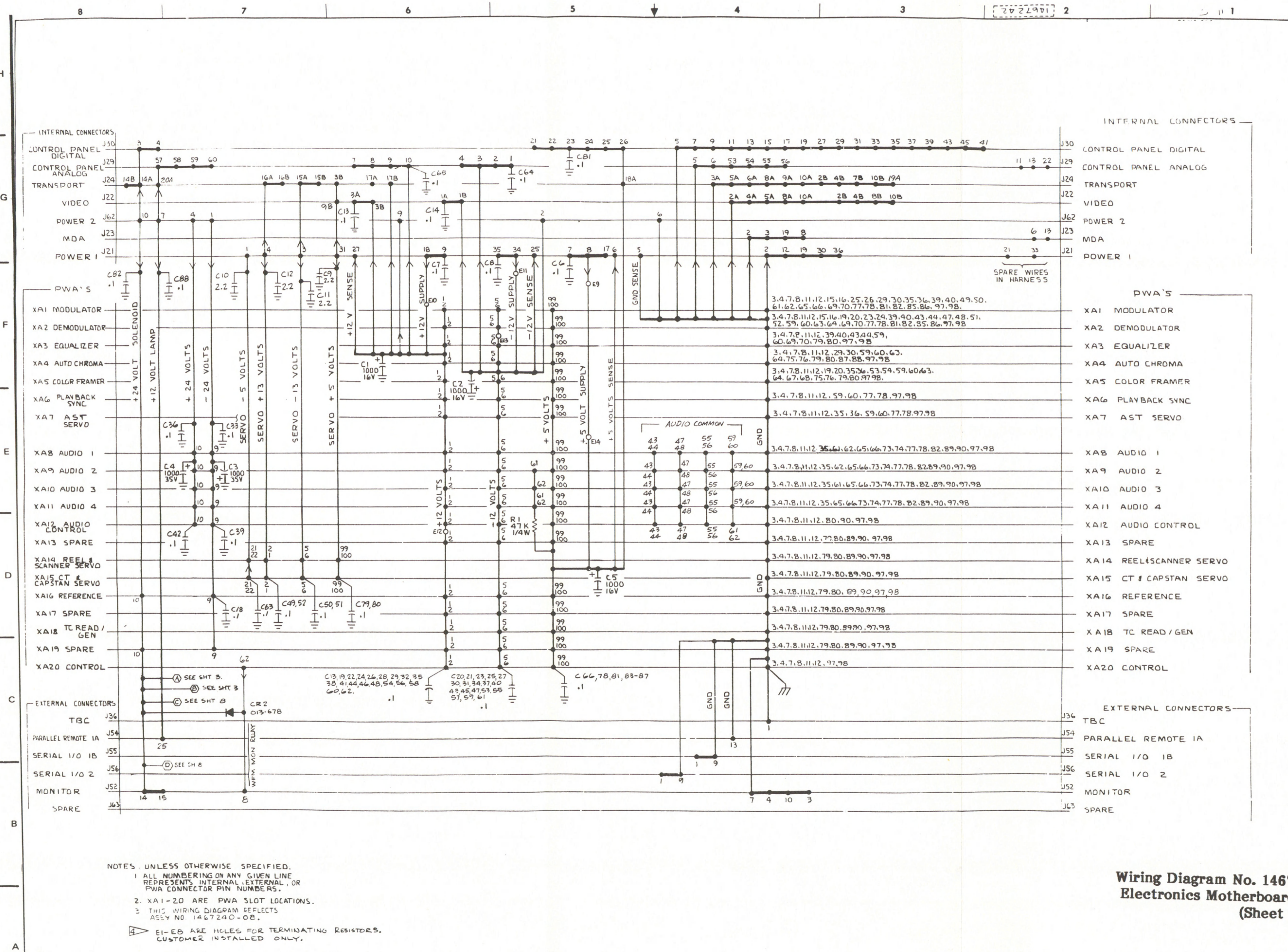
AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467240 SHEET 2	REV W

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07	-08		
38	140-738	CONNECTOR, SIGNAL CKT, RECPT, RECT, 25 SOC	MBJ54	1	1	1	1	1	1	1	1		
39	140-739	RECPT, RECT, 37 SOC	MBJ36	1	1	1	1	1	1	1	1		
40	140-813	RECPT, RECT, 30 CONTACTS	MBJ22	1	1	1	1	1	1	1	1		
41	140-814	RECPT, RECT, 40 CONTACTS	MBJ24	1	1	1	1	1	1	1	1		
42	139-020	RECPT, RECT, 12 PIN	MBJ62	1	1	1	1	1	1	1	1		
43	145-675	CONNECTOR, SIGNAL CKT, RECPT, PC, DUAL 50	XA1-20	20	20	20	20	20	20	20	20		
44													
45													
46	167-077	CONNECTOR PART, KIT, FEMALE SCREWLOCK	REF:MBJ36,48-52, 54-56,63	10	10	10	10	10	10	10	10		
47													
48	177-139	CONNECTOR PART, ESCUTCHEON, AUDIO	REF:MBJ39,41,43,45	4	4	4	4	4	4	4	4		
49	177-140	CONNECTOR PART, ESCUTCHEON, AUDIO	REF:MBJ40,42,44,46	4	4	4	4	4	4	4	4		
50													
51													
52	498-642	NUT, CLINCH, FIXED, 6-32 PC MTG		5	5	5	5	5	5	5	5		
53	498-643	NUT, CLINCH, FIXED, 4-40, P.C. MTG		4	4	4	4	4	5	5	5		
54													
55	600-036	SLEEVING, FLEXIBLE, TEFLON	REF:C3							A/R	A/R		
56													
57	230-083	SPACER, THREADED, PLAIN, 4-40 X .500 LG		20	20	20	20	20	20	20	20		
58													
59	302-344	STRAP, ACCESSORIES, MTG. PLATE							1	1	1		
60													
61	470-473	SCREW, CAP, SOCKET HD, HEX SOC DR, 4-40 X .375 LG, BLACK		16	16	16	16	16	16	16	16		
62	472-954	SCREW, CAP, SOCKET HD, HEX SOC DR, 6-32 X .375 LG								16	16		
63	474-500	SCREW, MACH, PAN HD., XREC DR, #4-40 X .312 LG							1	1	1		
64													
65	475-085	SCREW, MACH, PAN HD, XREC DR, 6-32 X .312 LG		3	3	3	3	3	3	3	3		
66	475-326	SCREW, MACH, PAN HD, XREC DR, 4-40 X .375 LG		24	24	24	24	24	24	24	24		
67													
68													
69													
70	476-666	SCREW, TAPPING, PAN HD, XREC DR, #2 AB THRD X .500 LG		26						-	-		
71	476-669	SCREW, TAPPING, PAN HD, XREC DR, #2 AB THRD X .375 LG			26	26	26	26	26	26	26		
72	501-775	WASHER, LOCK #6								16	16		
73	501-184	WASHER, PLAIN, SM PATTERN, #2		26	26	26	26	26	26	26	26		
74	501-169	WASHER, PLAIN, SMALL PATTERN #4		24	24	24	24	24	24	24	24		
75	501-188	WASHER, PLAIN, SMALL PATTERN #6		3	3	3	3	3	3	3	3		
76	501-777	WASHER, PLAIN #6								16	16		
77	502-001	WASHER, LOCK, HELICAL, SPRING, #2		26	26	26	26	26	26	26	26		
78													
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81													
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LM-1467240

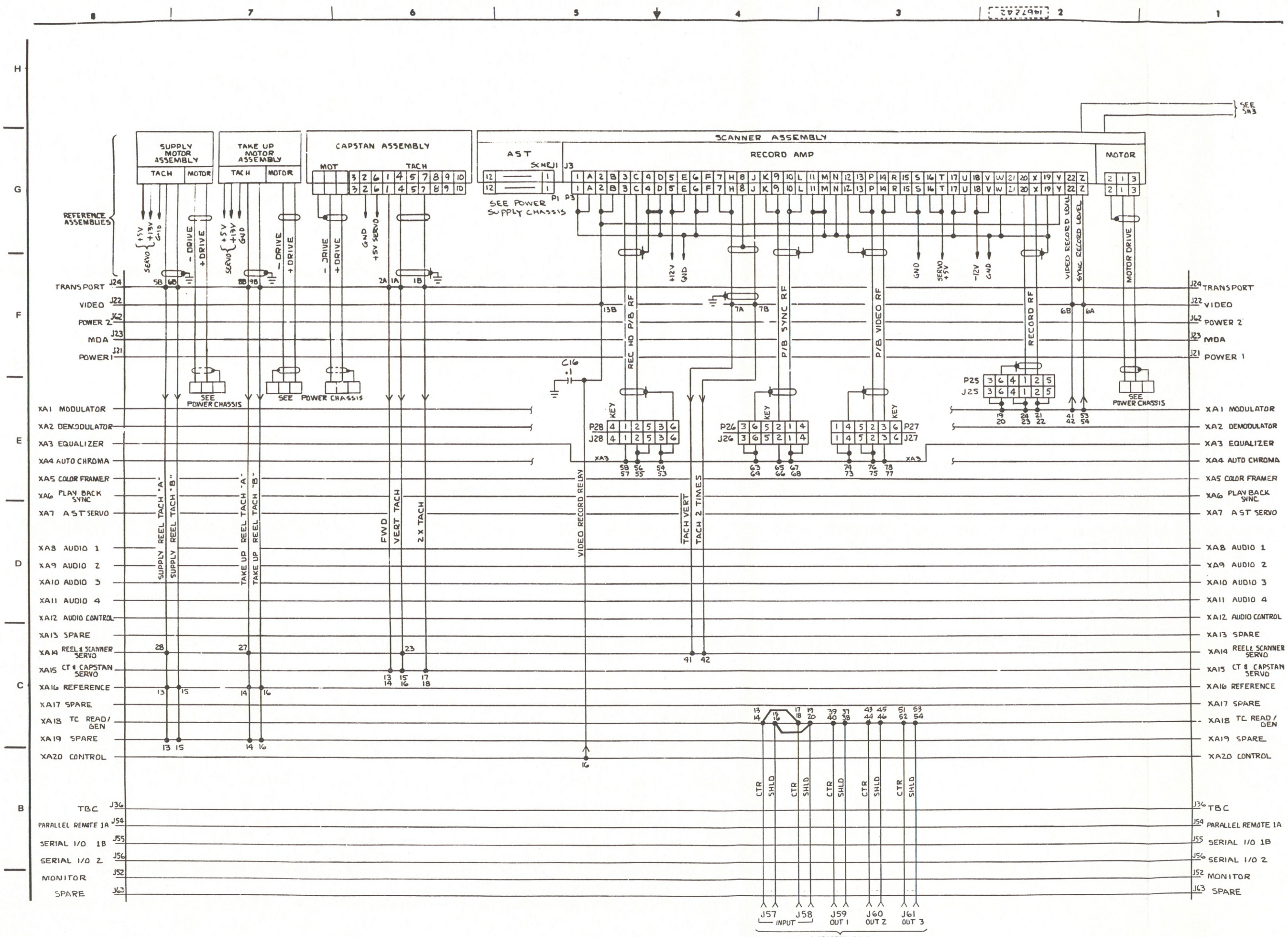


Assembly No. 1467240-08W.
Electronics Motherboard PWA

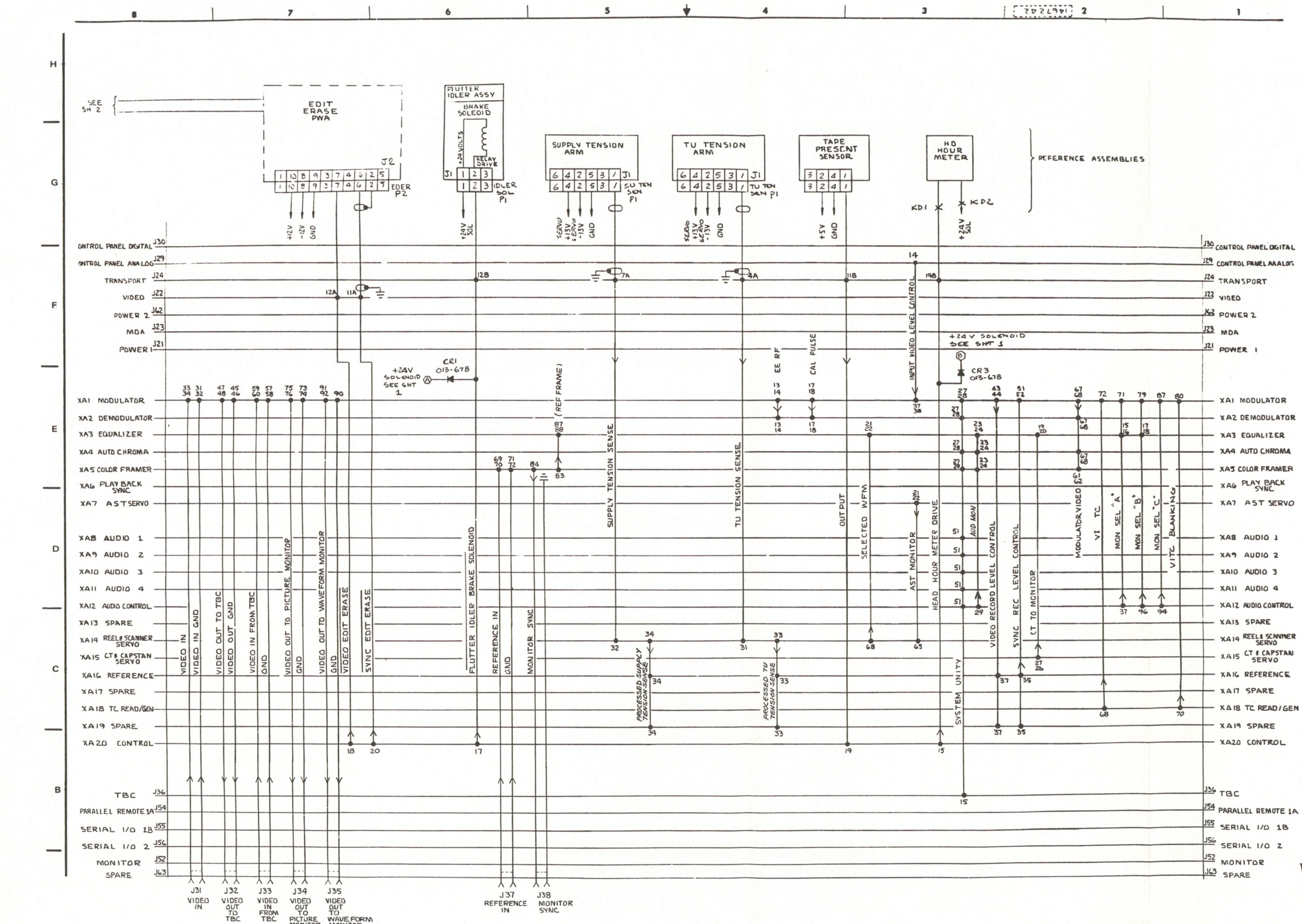


NOTES: UNLESS OTHERWISE SPECIFIED.
1. ALL NUMBERING ON ANY GIVEN LINE REPRESENTS INTERNAL, EXTERNAL, OR PWA CONNECTOR PIN NUMBERS.
2. XA1-20 ARE PWA SLOT LOCATIONS.
3. THIS WIRING DIAGRAM REFLECTS ASSY NO. 1467240-08.
4. E1-E8 ARE HOLES FOR TERMINATING RESISTORS. CUSTOMER INSTALLED ONLY.

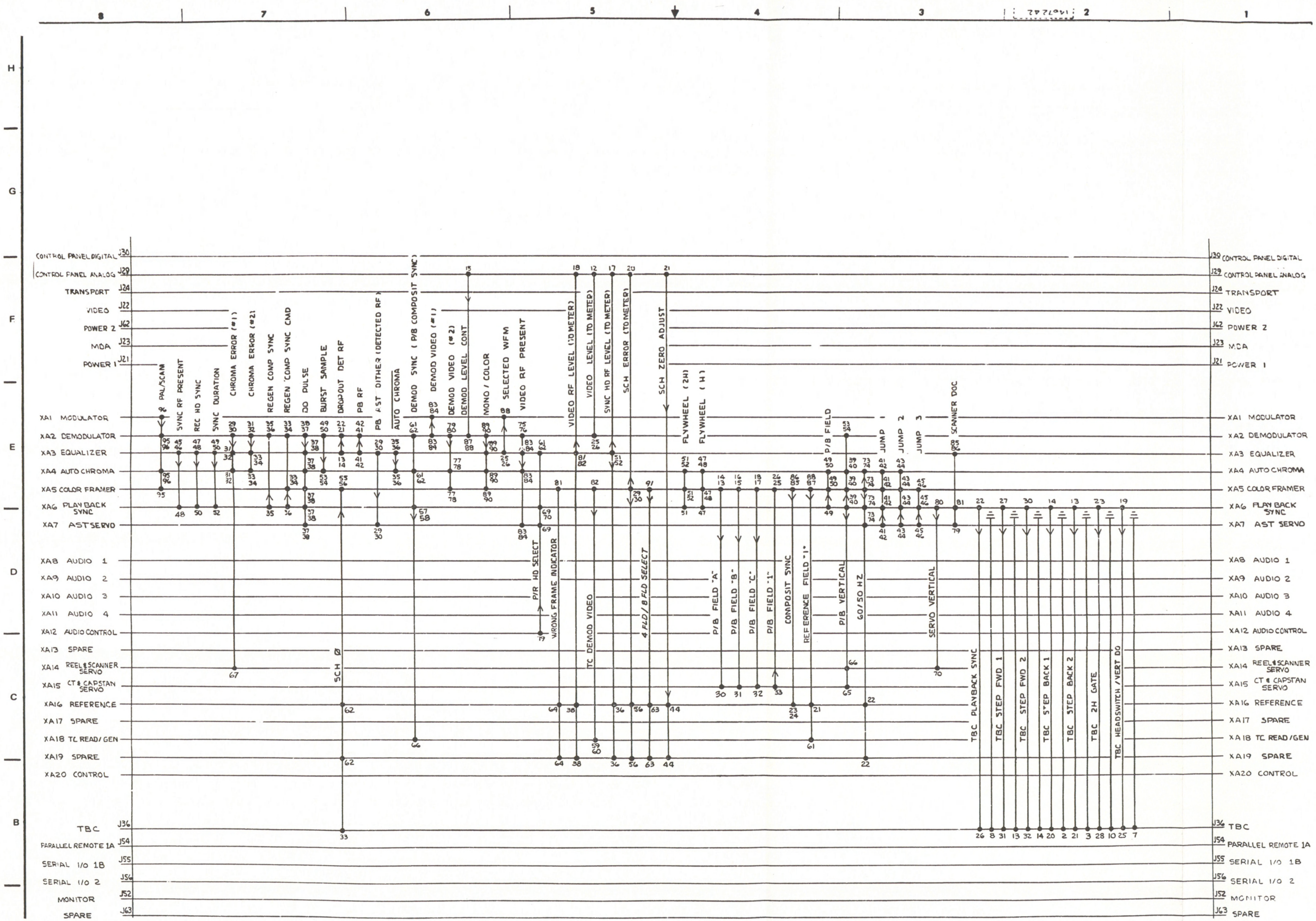
Wiring Diagram No. 1467242N.
Electronics Motherboard PWA
(Sheet 1 of 9)



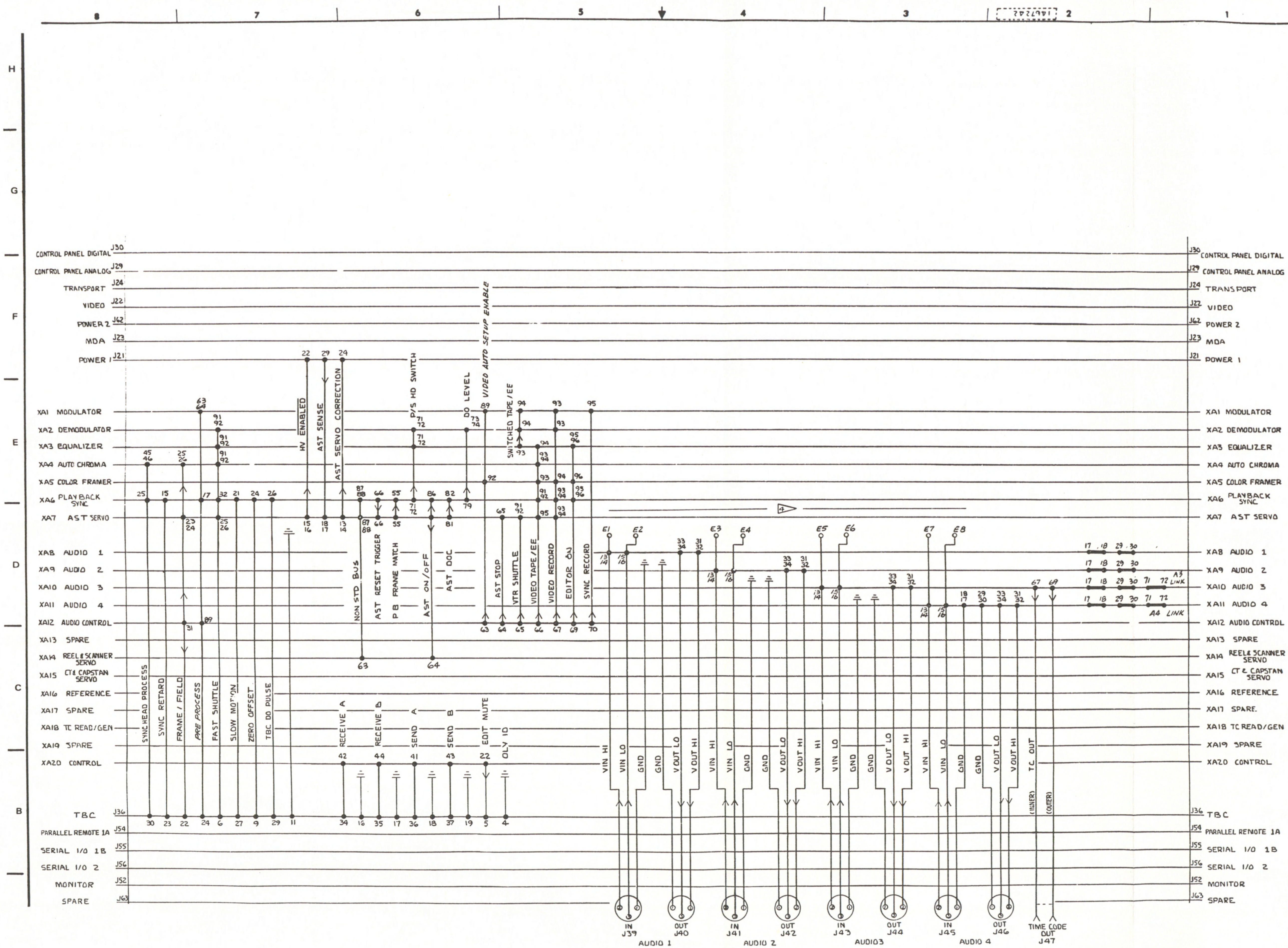
**Wiring Diagram No. 1467242N.
Electronics Motherboard PWA
(Sheet 2 of 9)**



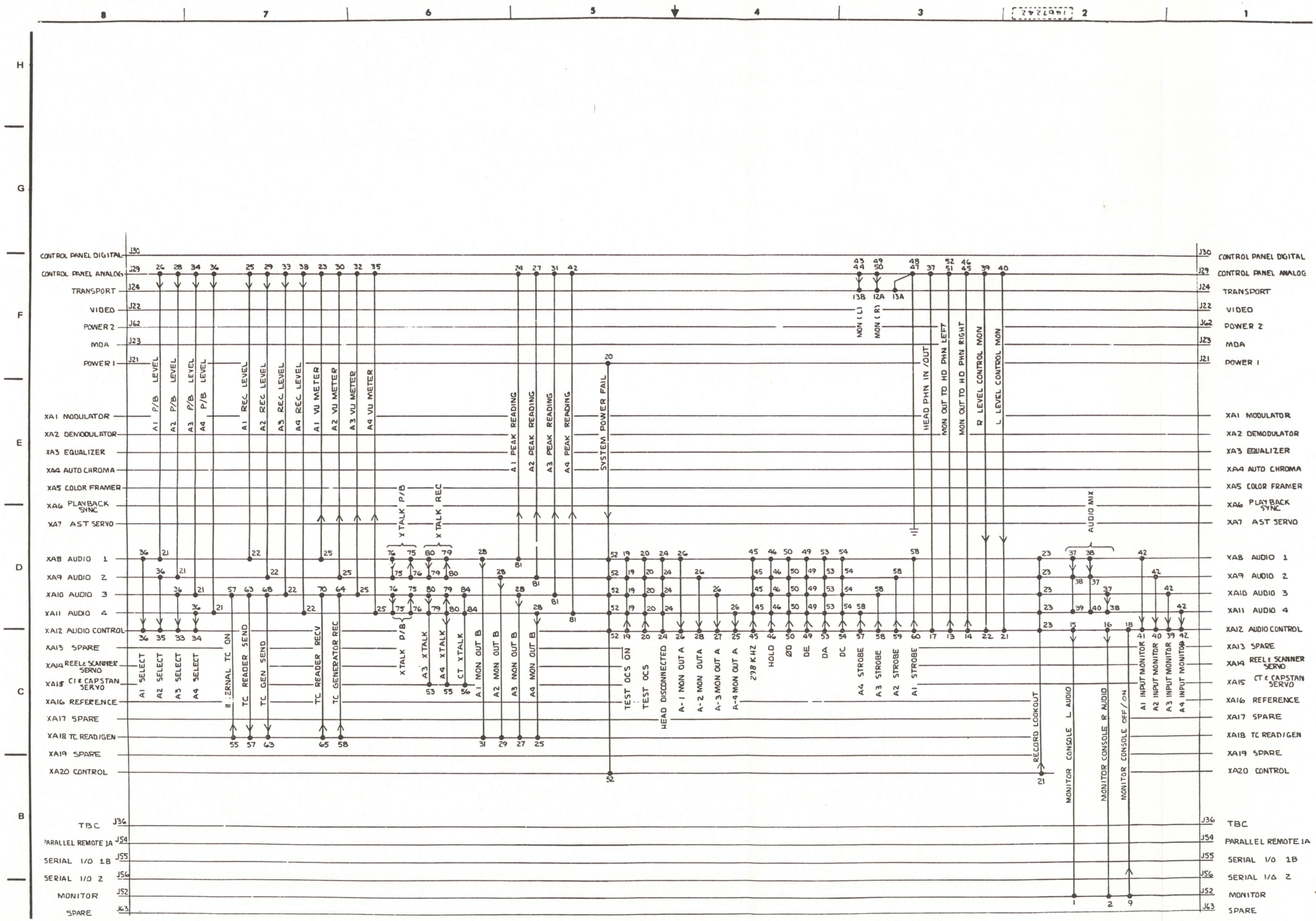
Wiring Diagram No. 1467242N.
Electronics Motherboard PWA
(Sheet 3 of 9)



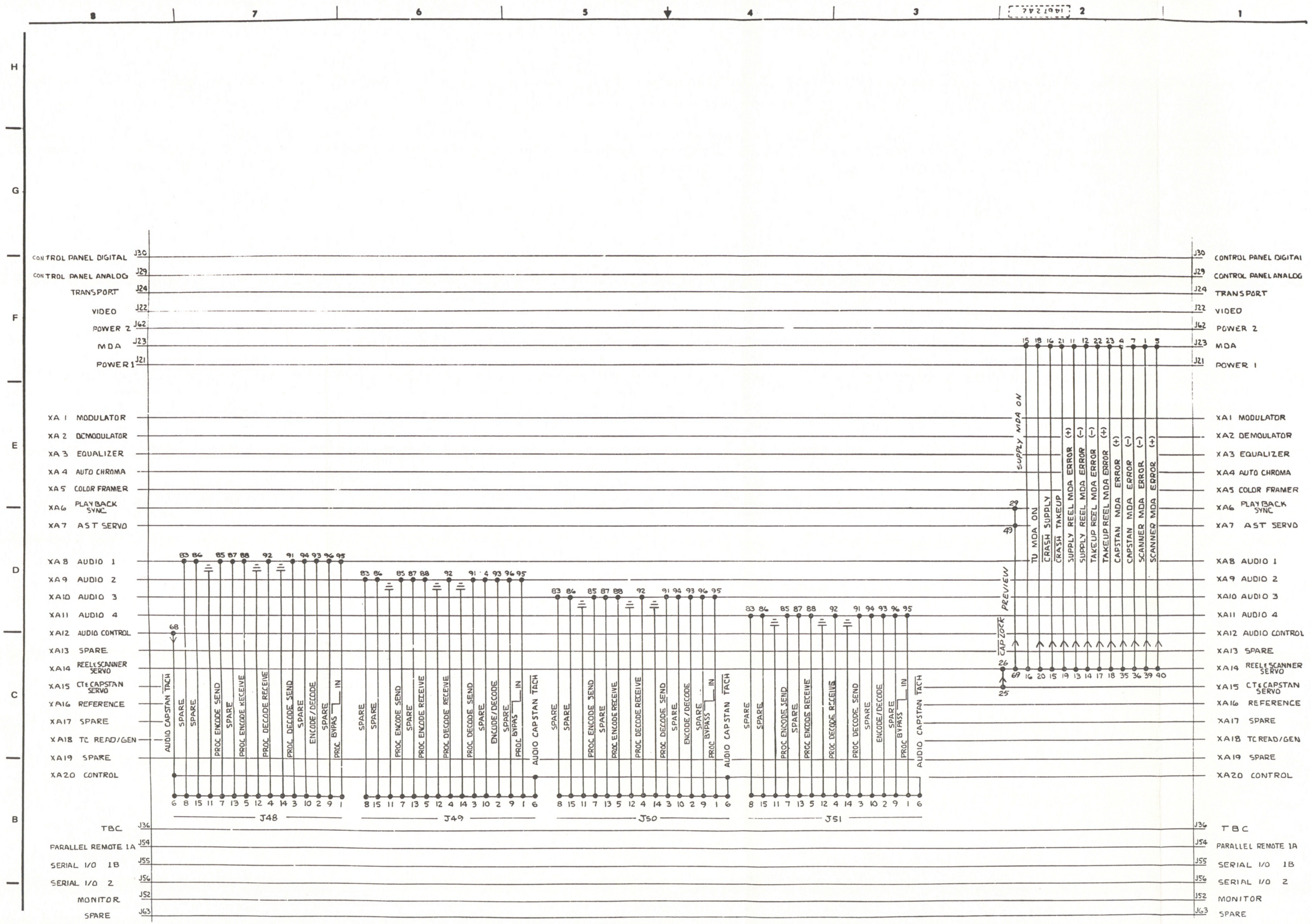
Wiring Diagram No. 1467242N.
Electronics Motherboard PWA
(Sheet 4 of 9)



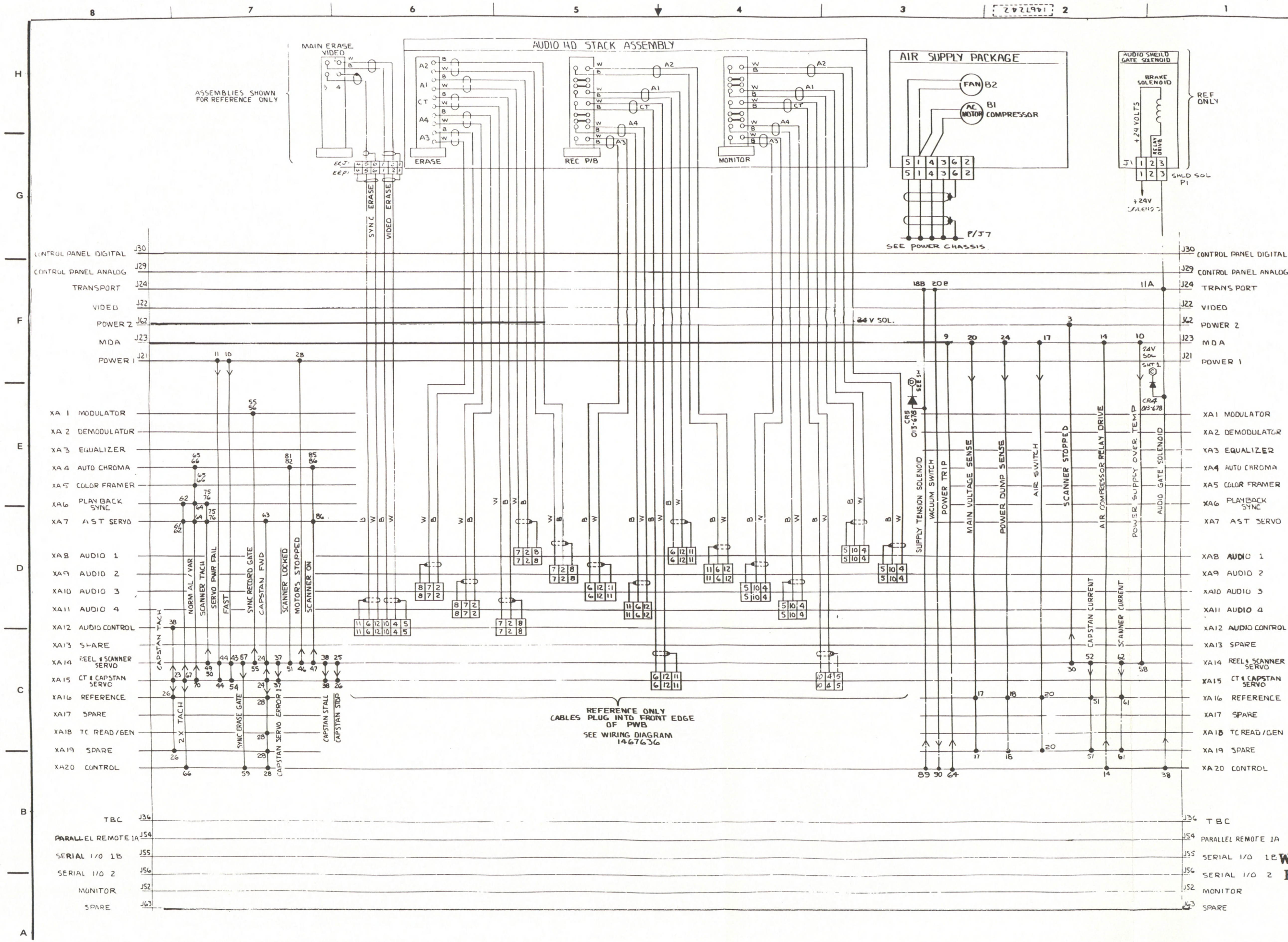
Wiring Diagram No. 1467242N.
Electronics Motherboard PWA
(Sheet 5 of 9)



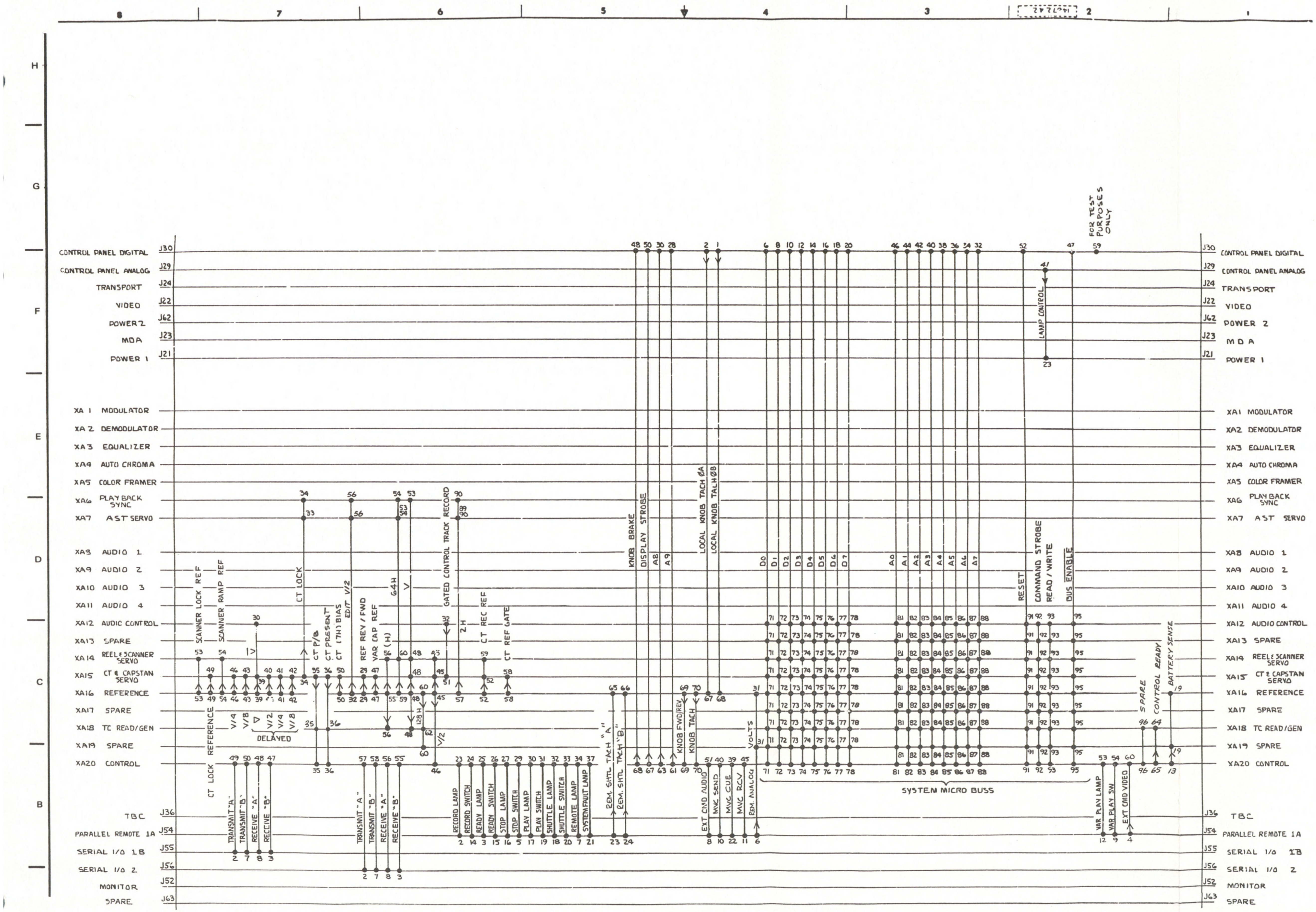
Wiring Diagram No. 1467242N.
Electronics Motherboard PWA
(Sheet 6 of 9)



Wiring Diagram No. 1467242N.
Electronics Motherboard PWA
(Sheet 7 of 9)



Wiring Diagram No. 1467242N. Electronics Motherboard PWA (Sheet 8 of 9)



Wiring Diagram No. 1467242N.
Electronics Motherboard PWA
(Sheet 9 of 9)

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
				QTY REQD PER DASH NUMBER					
1									
2									
3	1467012	SCHEMATIC		F	G	H	J	K	L
4	1467780-01	PIGGYBACK, VID/SYNC REC. CONTROL SW.					1	1	-
5	1400004-01	EJECTOR, PWB		1	1	1	1	1	1
6	1467008-AA	LABEL		1	1	1	1	1	1
7	1467009-01	SHIELD		1	1	1	1	1	1
8	250-155	BUMPER, PAD, SYNTHETIC RUBBER		3	3	3	3	3	3
9	283-105	SPACER, PLAIN, .140 ID X .250 OD X .125 LG		1	1	1	1	1	1
10	471-063	SCREW, MACH, PAN HD, XREC, 4-40 X .438 LG		1	1	1	1	1	1
11	474-500	SCREW, MACH, PAN HD, XREC, 4-40 X .312 LG		7	7	7	7	7	7
12	502-002	WASHER, LOCK, HELICAL SPRING, #4		1	1	1	1	1	1
13	506-011	WASHER, BOWED		1	1	1	1	1	1
14									
15									
16									
17	1379491-AN	TRANSFORMER, VAR, BIFILAR, 6.8uH	T3	1	1	1	1	1	1
18									
19									
20	1467007-01	SHAFT EXTENSION, POTENTIOMETER	REF: R211	1	1	1	1	1	1
21									
22									
23									
24									
25	064-314	CAPACITOR, CER, MONO, 1.0uF, 50V, 20%	C86,95,98, 152,161,178	6	6	6	6	6	6
26	064-316	↑ 2.2uF, 50V, 20%	C59,81, 82,85,118,162	6	6	6	6	6	6
27	064-652	.01uF, 50V, 20%	C40,41,44	3	3	3	3	3	3
28	064-651	220pF, 100V, 5%	C179	-	1	1	1	1	1
29	064-653	0.1uF, 50V, 20%	C3,4,7,9,11, 13-16,18,19,	75	75	75	75	75	75
30		21-25,28-31,33-35,38,42,43,46-53, 55-58,60,63-67,83,88,89,92,94,97,							
31		110-112,119,129,132,133,137,143,149, 150,154-157,164-170,173,174,177							
32									
33									
34									
35	064-665	56pF, 100V, 5%	C147		1	1	1	1	1
36	064-668	↓ 300pF, 100V, 5%	C122		1	1	1	1	1
37	064-671	CAPACITOR, CER, MONO, 22pF, 100V, 5%	C96,99,145, 151,160,172	6	6	6	6	6	6

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AMPEX Ampex Corporation Redwood City, California	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467010 SHEET 2	REV P

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
38	064-674	CAPACITOR, CER, MONO, 330pF, 50V, 1%	C117,138	2	2	2	2	2	2
39	064-680	130pF, 50V, 1%	C104	1	1	1	1	1	1
40	064-682	220pF, 50V, 1%	C101	1	1	1	1	1	1
41									
42	064-684	100pF, 50V, 1%	C102,105	2	2	2	2	2	2
43	064-685	200pF, 50V, 1%	C87,121	2	2	2	2	2	2
44	064-686	150pF, 50V, 1%	C106	1	1	1	1	1	1
45									
46	064-688	10pF, 50V, ±.5pF	C116,136,140	3	3	3	3	3	3
47	064-689	110pF, 50V, 1%	C109	1	1	1	1	1	1
48	064-699	390pF, 50V, 1%	C54	1	1	1	1	1	1
49									
50	064-707	15pF, 100V, 5%	C130,131	2	2	2	2	2	2
51	064-709	120pF, 100V, 5%	C8,76,141	3	3	3	3	3	3
52	064-713	36pF, 100V, 5%	C6,75,142	3	3	3	3	3	3
53									
54	064-717	110pF, 100V, 5%	C146	1	1	1	1	1	1
55	064-727	68pF, 50V, 1%	C26,61	2	2	2	2	2	2
56	064-732	240pF, 50V, 1%	C72	1	1	1	1	1	1
57	064-739	33pF, 50V, ±.5pF	C176	1	1	1	1	1	1
58	064-733	510pF, 50V, 1%	C100	1	1	1	1	1	1
59	064-740	62pF, 50V, 1%	C37,108	2	2	2	2	2	2
60	064-764	470pF, 50V, 5%	C107,163	2	2	2	2	2	2
61									
62	064-765	1500pF, 50V, 5%	C39	1	1	1	1	1	1
63	064-767	4700pF, 50V, 5%	C68,69,120	3	3	3	3	3	3
64	064-768	3300pF, 50V, 5%	C74,79	2	2	2	2	2	2
65									
66	064-785	47pF, 50V, ±.5pF	C103	1	1	1	1	1	1
67	064-788	36pF, 50V, ±.5pF	C134	1	1	1	1	1	1
68	064-819	1000pF, 50V, 1%	C1,71,84	3	3	3	3	3	3
69									
70	064-825	2200pF, 50V, 1%	C80	1	1	1	1	1	1
71	064-826	3300pF, 50V, 1%	C2	1	1	1	1	1	1
72	064-828	CAPACITOR, CER, MONO, 4700pF, 50V, 1%	C91	1	1	1	1	1	1
73									
74									
75									
76									
77									
78	034-363	CAPACITOR, MICA, 2000pF, 500V, 1%	C17	1	1	1	1	1	1
79									
80	034-883	327pF, 500V, 1%	C123,127	2	2	2	2	2	2
81	056-293	820pF, 500V, 1%	C128	1	1	1	1	1	1
82	056-729	CAPACITOR, MICA, 2000pF, 500V, .25%	C20	1	1	1	1	1	1

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AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467010 SHEET 3	REV R

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
83	056-770	CAPACITOR, MICA, 123pF, 300V, 1%	C124,126	2	2	2	2	2	2
84	056-769	CAPACITOR, MICA, 164pF, 300V, 1%	C125	1	1	1	1	1	1
85									
86									
87									
88	069-092	CAPACITOR, POLY, .047uF, 50V, 5%	C70	1	1	1	1	1	1
89	069-097	.022uF, 50V, 5%	C36,73,77,78, 158,159	6	6	6	6	6	6
90	069-100	CAPACITOR, POLY, .01uF, 50V, 5%	C90,93	2	2	2	2	2	2
91									
92	069-148	CAPACITOR, POLYCARB, .82uF, 100V, 1%	C10,12	2	2	2	2	2	2
93									
94									
95	037-062	CAPACITOR, TANT, 56uF, 6V, 10%	C62	1	1	1	1	1	1
96	037-186	120uF, 10V 10%	C175	1	1	1	1	1	1
97	037-380	400uF, 6V, -15% +75% (NON-PLZD)	C148	1	1	1	1	1	1
98									
99	037-507	150uF, 15V, 10%	C27,32,113, 114,144,153,171	7	7	7	7	7	7
100	037-740	33uF, 10V, 10%	C135	1	1	1	1	1	1
101	037-991	CAPACITOR, TANT, 22uF, 15V, 10%	C5,45	2	2	2	2	2	2
102									
103									
104									
105									
106	038-292	CAPACITOR, VAR, PISTON, 1-10pF	C115,139	2	2	2	2	2	2
107									
108									
109									
110									
111	017-056	CRYSTAL UNIT, 7.9MHz, CR-60A/U	Y1	1	1	1	1	1	1
112	017-060	CRYSTAL UNIT, 10.0MHz, CR-60A/U	Y2	1	1	1	1	1	1
113									
114									
115									
116	013-042	DIODE, GERMANIUM, IN949	CR5	-	1	1	1	1	1
117	013-166	DIODE, ZENER, IN746A, 3.3V	VR2,3	2	2	2	2	2	2
118	013-257	ZENER, IN753A, 6.2V	VR4,5	2	2	2	2	2	2
119	013-650	GERMANIUM, CD498	CR5,8	2	-	-	-	-	-
120	013-650	GERMANIUM, CD498	CR8	-	1	1	1	1	1
121	013-689	SWITCHING, CD6016	CR1,2,3,4,6, 7,9,10	8	8	8	8	8	8
122	013-983	DIODE, ZENER, IN752A, 5.6V	VR1	1	1	1	1	1	1
123									
124									
125									
126									
127	051-770	FERRITE-CHOKE	FL1-3	3	3	3	3	3	3

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ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
128	051-281	INDUCTOR, FIXED, 0.1uH, 20%	L6	1	1	1	1	1	1
129									
130									
131	068-327	300uH, 5%	L1,5,11		3	3	3	3	3
132	068-064	300uH, 5%	L1,5,11	3	-	-	-	-	-
133	068-158	3.22uH, 1.25%	L7,10	2	2	2	2	2	2
134	068-159	3.86uH, 1.25%	L8,9	2	2	2	2	2	2
135									
136									
137									
138	540-003	220uH, 5%	L2,3	2	2	2	2	2	2
139	540-009	INDUCTOR, FIXED, 2.2uH, 10%	L4	1	1	1	1	1	1
140									
141									
142									
143									
144	000-037	INTEGRATED CIRCUIT, 74C193 (1)	U11	1	1	1	1	1	1
145									
146									
147									
148	586-255	CA3019	U7,8,9,15,16	5	5	5	5	5	5
149									
150									
151									
152	000-145	NE592	U33,35	2	2	2	2	2	2
153	001-892	MC7905.2CT	U21	1	1	1	1	1	1
154									
155									
156									
157	589-009	DG181BP (1)	U37,38,39,48,49	5	5	5	5	5	5
158	000-146	NE529	U24,26,43	3	3	3	3	3	3
159	589-592	DG301CJ (1)	U28,30,45	3	3	3	3	3	3
160									
161									
162									
163	590-086	DG303CJ (1)	U5,42,51	2	2	2	2	2	3
164	590-252	MC10216	U17,19	2	2	2	2	2	2
165	590-326	MC10131	U18	1	1	1	1	1	1
166									
167	590-332	74LS02	U4	1	1	1	1	1	1
168	000-076	MC14556B (1)	U50	1	1	-	-	-	-
169	590-446	LM310P	U25,44	2	2	2	2	2	2
170	003-237	74HCT139	U50			1	1	1	1
171	590-460	LM306P	U34	1	1	1	1	1	1
172	002-928	INTEGRATED CIRCUIT, MC14528B (1)	U23	1	1	1	1	1	1

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ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
173	590-506	INTEGRATED CIRCUIT, CD4011BE,	U3,40,47	3	3	3	3	3	3
174	590-528	CD4001BE,	U12,41	2	2	2	2	2	2
175	586-776	MC1357P,	U13,14	2	2	2	2	2	2
176									
177	590-540	CA3054,	U22	1	1	1	1	1	1
178	590-546	CD4013BE,	U2	1	1	1	1	1	1
179	590-561	CA3140E,	U20,29,43	3	3	3	3	3	3
180	590-601	LF356	U6	1	1	1	1	1	1
181	590-572	74C221,	U1,31,32,36	4	4	4	4	4	4
182	590-616	74221.	U27	1	1	1	1	1	1
183	587-270	INTEGRATED CIRCUIT, LH0002CH,	U10	1	1	1	1	1	1
184									
185									
186									
187									
188	066-660	RESISTOR, C.F., 22 OHM, .25W, 5%	R231,264,265,304	4	4	4	4	4	4
189	066-663	220	R113,217,220	3	3	3	3	3	3
190	066-665	1K	R105,107,151,208,300,306,321	7	7	7	7	7	7
191									
192	066-662	200	R328	1	1	1	1	1	1
193	066-667	3K	R62,63,136,190,194,218,219	7	7	7	7	7	7
194									
195									
196	066-668	4.7K	R109,116,125,296	4	4	4	4	4	4
197	066-673	1.0M	R112,121,295	3	3	3	3	3	3
198	066-677	68	R33	1	1	1	1	1	1
199	066-689	2.2K	R131	-	1	1	1	1	1
200	066-689	2.2K	R131,331	2	-	-	-	-	-
201	066-711	7.5K	R115,124,294	3	3	3	3	3	3
202	066-717	47K	R104,127,283-287,290,299,302,317	11	11	11	11	11	11
203									
204									
205	066-718	5.6K	R36,38,40,52,55,232,259,261,263,266,303	11	11	11	11	11	11
206									
207									
208	066-720	3.3K	R129	1	1	1	1	1	1
209	066-810	10	R158,170,253,274,313	5	5	5	5	5	5
210	066-812	100	R41,71,103,119,298	5	5	5	5	5	5
211									
212	066-813	150	R85,87	2	2	2	2	2	2
213	066-816	390	R70,74,75,78-81,84,88,92,97	11	11	11	11	11	11
214									
215									
216	066-824	RESISTOR, C.F., 1.5K OHM, .25W, 5%	R5,19,46,48,66	5	5	5	5	5	5
217									

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AMPEX Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467010 SHEET 6	REV R

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
218	066-826	RESISTOR, C.F., 2K OHM, .25W, 5%	R3,21,42.56,57,117,144,238,239,245	10	10	10	10	10	10
219									
220									
221	066-830	10K	R18,51,106,108,118,145,146,297,301,318,319	11	11	11	11	11	11
222									
223									
224	066-837	130	R154,166,249,278,309	5	5	5	5	5	5
225	066-838	330	R216,221	2	-	-	-	-	-
226	066-846	30K	R236,288,289	3	3	3	3	3	3
227	066-838	330	R216,221.331	-	3	3	3	3	3
228	066-847	33K	R111,120,291	3	3	3	3	3	3
229	066-856	15K	R149	1	1	1	1	1	1
230	066-859	240	R76,77	2	2	2	2	2	2
231									
232	066-873	20K	R60	1	1	1	1	1	1
233	066-913	220K	R161,172,255,271,316	5	5	5	5	5	5
234	066-928	2.4K	R17	1	1	1	1	1	1
235									
236	066-935	15	R210	1	1	1	1	1	1
237	066-938	RESISTOR, C.F., 47 OHM, .25W, 5%	R25,27,31,37,39,43,53,54,	31	31	31	31	31	31
238		72,91, 122,160,186,187,193,203,204,233,235,240,241,256,257,260,262,267,269,272,292,315,322							
239									
240									
241									
242									
243	076-004	RESISTOR, C.F., 180 OHM, .25W, 5%	R114,123,293	3	3	3	3	3	3
244	076-039	20	R86,327	2	2	2	2	2	2
245	076-045	75	R156,168,251,276,311	5	5	5	5	5	5
246									
247	076-049	RESISTOR, C.F., 160K OHM, .25W, 5%	R234	1	1	1	1	1	1
248									
249									
250									
251	041-007	RESISTOR, FIXED, COMP, 750 OHM, .5W, 5%	R281	1	1	1	1	1	1
252	041-006	RESISTOR, FIXED, COMP, 620 OHM, .5W, 5%	R163,246	2	2	2	2	2	2
253	041-688	RESISTOR, FIXED, COMP, 75 OHM, 2W, 5%	R207	1	1	1	1	1	1
254									
255	079-245	RESISTOR, M.F., 196 OHM, .125W, .25%	R23	1	1	1	1	1	1
256	079-247	RESISTOR, M.F., 301 OHM, .125W, .25%	R24	1	1	1	1	1	1
257									
258	042-331	RESISTOR, M.F., 16.9K OHM, .125W, 1%	R130	1	1	1	1	1	1
259									
260									
261									
262	062-623	RESISTOR, M.F., 976 OHM, .125W, 1%	R200	1	1	1	1	1	1

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ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
263	062-624	RESISTOR, M.F., 1K OHM, .125W, 1%	R12,128,199	3	3	3	3	3	3
264	062-625	1.21K	R320	1	1	1	1	1	1
265	062-639	3.01K	R13,30,214	3	3	3	3	3	3
266									
267	062-642	6.81K	R132,133,139, 140	4	4	4	4	4	4
268	062-643	2K	R93,94,222	3	3	3	3	3	3
269	062-694	15K	R100,175	2	2	2	2	2	2
270									
271	062-796	1.0M	R206,243	2	2	2	2	2	2
272	062-801	10	R180,185,228	3	3	3	3	3	3
273	062-805	24.3	R197,237	2	2	2	2	2	2
274	062-815	45.3	R89	1	1	1	1	1	1
275	062-822	51.1	R101,102	2	2	2	2	2	2
276	062-834	73.2	R150,162,209, 282,305	5	5	5	5	5	5
277	062-836	75	R142,215,268, 270	4	4	4	4	4	4
278									
279	062-863	147	R58,59	2	2	2	2	2	2
280	062-865	154	R22	1	1	1	1	1	1
281									
282									
283	062-879	237	R173,176,224, 225	4	4	4	4	4	4
284	062-880	249	R152,153,164, 165,247,248,	11	11	11	11	11	11
285			255,279,280, 307,308						
286									
287	062-884	301	R20	1	1	1	1	1	1
288	062-887	332	R157,169,252, 275,312	5	5	5	5	5	5
289	062-910	619	R134	1	1	1	1	1	1
290									
291	062-918	825	R198,201	2	2	2	2	2	2
292	066-921	294	R212,223	2	2	2	2	2	2
293	062-929	1.15K	R174	1	1	1	1	1	1
294									
295	062-935	1.65K	R8,67	2	2	2	2	2	2
296	062-936	1.74K	R188,192,227, 229	4	4	4	4	4	4
297	062-944	2.37K	R11,68	2	2	2	2	2	2
298									
299	062-945	2.43K	R189,191,226, 230	4	4	4	4	4	4
300	062-950	2.74K	R47,90,138	3	3	3	3	3	3
301	062-952	2.87K	R6,45,49,65	4	4	4	4	4	4
302									
303	062-958	3.74K	R183	1	1	1	1	1	1
304	062-962	4.02K	R7,9,14,32	4	4	4	4	4	4
305	062-964	4.53K	R61	1	1	1	1	1	1
306									
307	062-965	RESISTOR, M.F., 4.64K OHM, .125W, 1%	R179	1	1	1	1	1	1

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ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-0	-02	-03	-04	-05	-06
308	062-966	RESISTOR, M.F., 4.75K OHM, .125W, 1%	R181	1		1	1	1	1
309	062-968	4.99K	R177	1		1	1	1	1
310	062-972	5.62K	R82,83,155, 159,167,171,	12	12	12	12	12	12
311			250,254,273, 277,310,314						
312	062-980	8.06K	R110	1	1	1	1	1	1
313	062-979	7.87K	R178	1		1	1	1	1
314	062-982	9.09K	R213	1		1	1	1	1
315	062-983	10K	R1,2,73, 143,147,148,	7	7	7	7	7	7
316			244						
317									
318	062-995	16.5K	R141	1		1	1	1	1
319									
320									
321									
322	066-011	39.2K	R126	1		1	1	1	1
323	066-014	47.5K	R202,242	2	2	2	2	2	2
324	066-064	52.3K	R182	1		1	1	1	1
325									
326	066-159	1.78K	R184	1		1	1	1	1
327	066-174	806	R69	1		1	1	1	1
328	066-175	1.18K	R16	1		1	1	1	1
329									
330	066-441	698	R28	1		1	1	1	1
331	066-454	1.91K	R4,44,50,64	4	4	4	4	4	4
332	066-802	9.76K	R98	1		1	1	1	1
333	066-793	787	R10	1		1	1	1	1
334	066-925	22.1K	R137	1		1	1	1	1
335									
336									
337									
338	066-751	RESISTOR, M.F., 1.13K OHM, .125W, 1%	R99	1		1	1	1	1
339									
340									
341									
342									
343	044-940	RESISTOR, VARIABLE, 50 OHM, .5W, 20%	R35,135,330	3	3	3	3	3	3
344	044-944	5K 20%	R26,34	2	2	2	2	2	2
345	044-891	200 20%	R324	1		1	1	1	1
346									
347	058-001	50K 20%	R323	1			1	1	1
348	058-474	500 10%	R211	1			1	1	1
349	058-540	5K 10%	R96,205	2	2	2	2	2	2
350	058-564	500 10%	R29,196	2	2	2	2	2	2
351	058-611	10K 20%	R329	1			1	1	1
352	058-651	RESISTOR, VARIABLE, 2K OHM, .5W, 10%	R15	1			1	1	1

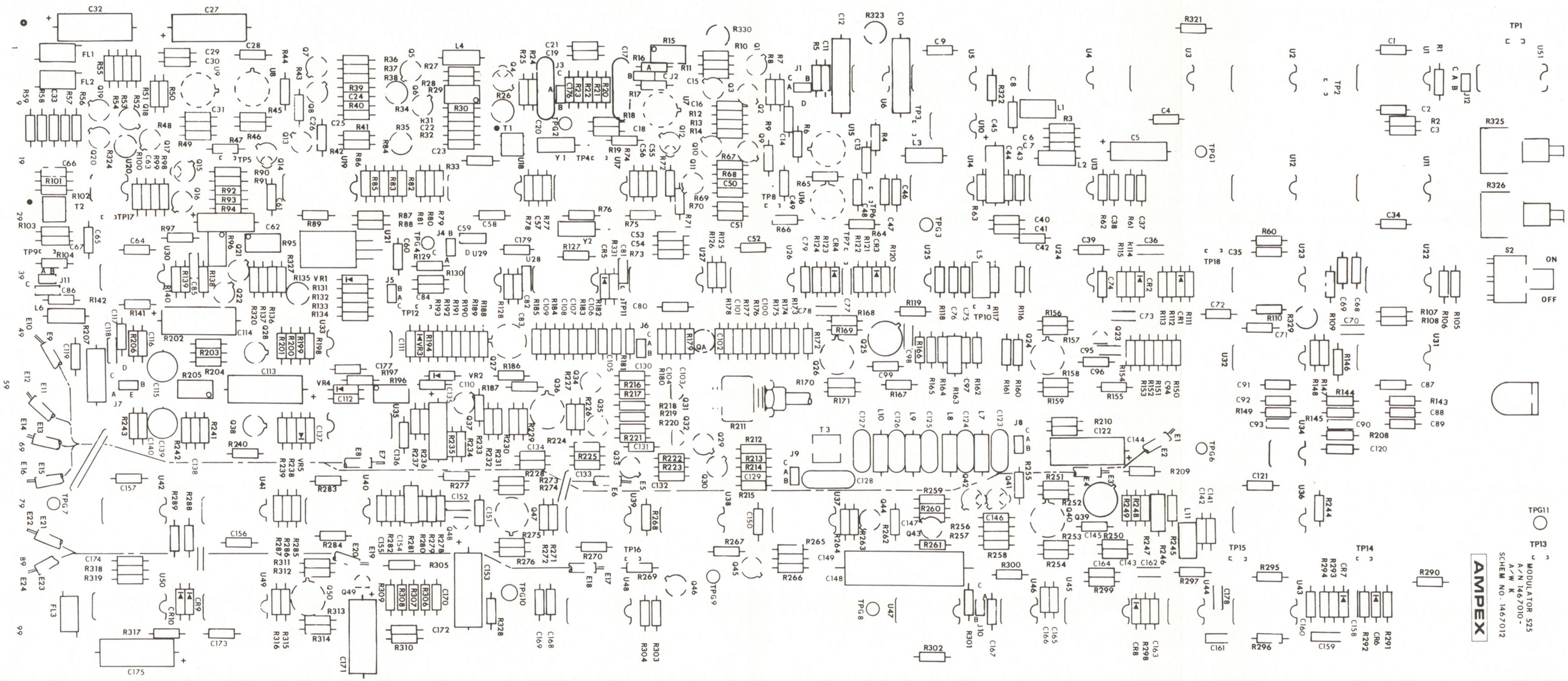
LM-1467010

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
353	058-893	RESISTOR, VARIABLE, 200K OHM, .5W, 10%	R95	1	1	1	1	1	1
354	058-459	RESISTOR, VARIABLE, 5K OHM, .5W, 10%	R325,326	2	2	2	2	2	2
355									
356									
357									
358	014-364	TRANSISTOR, TC50212	Q25,39	2	2	2	2	2	2
359	014-505	2N3251	Q1,2,4-6,9,12, 13,18,19,22, 29,33,43	14	14	14	14	14	14
360									
361									
362	014-581	TRANSISTOR, 2N2369A	Q3,7,8,10, 11,14-17,20, 21,30,34,35,37,41,42,44-46	20	20	20	20	20	20
363									
364									
365	014-697	TRANSISTOR, MD3251A	Q27,36	2	2	2	2	2	2
366	014-852	TRANSISTOR, MD2369A	Q24,26,40,47, 50	5	5	5	5	5	5
367	580-840	TRANSISTOR, MPSH81	Q23,31,32, 48,49	5	5	5	5	5	5
368	580-971	TRANSISTOR, FET, U440	Q28,38	2	2	2	2	2	2
369									
370	075-273	RESISTOR, MTG PLATE	REF: R211,325,326	3	3	3	3	3	3
371	075-274	RESISTOR, WIRING BOARD	REF: R211,325,326	3	3	3	3	3	3
372									
373									
374									
375	087-368	SILICONE, COMPOUND, GREASE, HEAT CONDUCTIVE	REF: U21	A/R	A/R	A/R	-	-	-
376									
377									
378	119-279	SWITCH, TOGGLE, DPDT	S1	1	1	1	-	-	-
379	120-967	SWITCH, TOGGLE, SPDT	S2	1	1	1	1	1	1
380									
381									
382									
383	140-437	CONNECTOR, SIGNAL CIRCUIT, PLUG, RECT, 2 SOCKETS	J1-12	11	11	11	11	11	12
384									
385									
386									
387	187-055	TERMINAL, WIREWRAP	J1-ABCD,J2-ABC,J3-ABC, J4-ABCD,J5-ABC,J6-ABC, J7-ABCDE,J8-ABC,J9-ABC, J10-ABC,J11-ABC,J12-ABC	37	37	37	37	37	40
388									
389									
390	187-259	TERMINAL, PC, TEST POINT	TP1-18	18	18	18	18	18	18
391									
392									
393									
394									
395									
396	280-998	TRANSISTOR, MTG HDW, MTG PAD, TO-5	REF:Q25,39	2	2	2	2	2	2
397									

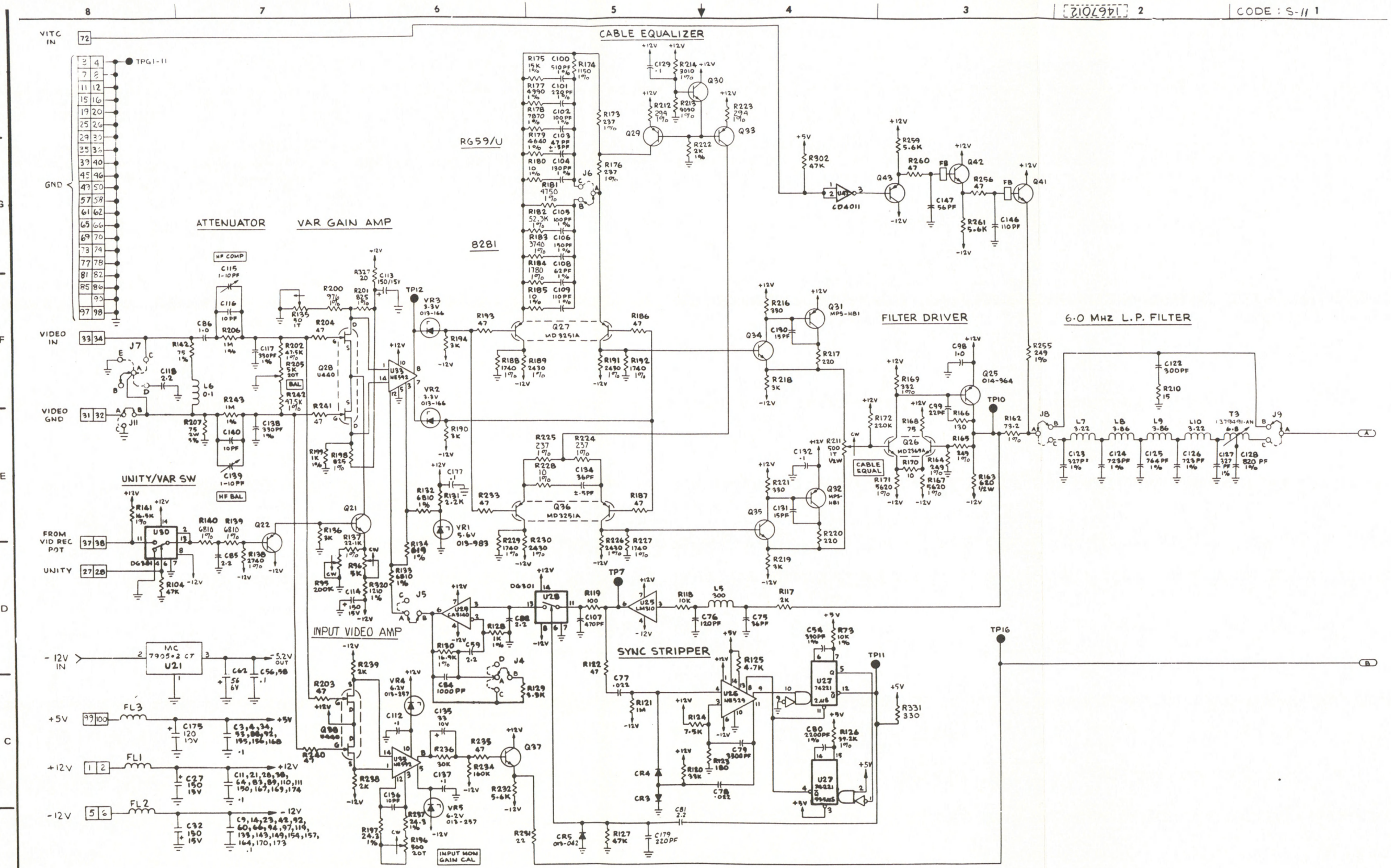
LM-1467010

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
398	281-041	SHAFT PART, COUPLING, RIGID	REF: R211	1	1	1	1	1	1
399									
400									
401									
402	290-192	BRACKET, 90° ANGLE MTG	REF: R211	1	1	1	1	1	1
403	302-395	STRAP, CABLE, "MOUSETAIL"		3	3	3	3	3	3
404	435-122	CLIP, CRADLE	REF: Y1,2	2	2	2	2	2	2
405	460-011	RIVET, OVAL HD, TUBULAR	REF: Y1,2	4	4	4	4	4	4
406									
407									
408	471-060	SCREW, MACH, PN HD, XREC DR, 4-40 X .250 LG	REF:U21, R211	2	2	2	2	2	2
409	472-113	SCREW, MACH, PN HD, XREC DR, #2-56 X .250 LG	REF:PIGGYBACK				1	1	-
410									
411	496-004	NUT, HEX CAPTIVE, WASHER, 4-40	REF:U21, R211	2	2	2	2	2	2
412									
413									
414	502-001	WASHER, LOCK, HELICAL SPRING #2	REF:PIGGYBACK				1	1	-
415									
416									
417	570-435	TRANSFORMER, WIDEBAND, T4-1T	T1,2	2	2	2	2	2	2
418									
419									
420	582-167	TRANSISTOR MTG HDW, INSULATOR MICA	REF: U21	1	1	1	-	-	-
421	582-378	TRANSISTOR MTG HDW, INSULATOR, SILICON RUBBER	REF:U21				1	1	1
422	615-154	WIRE, SOLID INSULATOR, 30 AWG, GRN	REF:PIGGYBACK E25-E28				A/R	A/R	-
423	616-569	CABLE, COAXIAL, SINGLE CIRCUIT, 75 OHM		A/R	A/R	A/R	A/R	A/R	A/R
424									
425									
426	932-035	SHIELDING, BEAD	REF:BASE Q4, 12,14,15,41, 42	6	6	6	6	6	6
427									
428									
429									
430									
431									
432									
433									
434									
435									
436									
437									
438									
439		NOTES:							
440		[1] STATIC SENSITIVE, SPECIAL HANDLING REQUIRED PER AMPEX STD HE1-1.							
441									
442									

LM-1467010



Assembly No. 1467010-06R.
Modulator PWA, A1, NTSC, PAL-M



NOTES : UNLESS OTHERWISE SPECIFIED

1. RESISTORS IN OHMS, 1/4 W, 5%
2. CAPACITORS IN MICROFARADS
3. INDUCTORS IN MICROHENRIES
4. DIODES ARE 013-689.
5. NPN TRANSISTORS ARE 014-581.
6. PNP TRANSISTORS ARE 014-505.
7. ALL ANALOG SWITCHES ARE SHOWN IN LOGIC (1) POSITION.
8. ALL UNUSED CMOS I.C. INPUTS ARE TIED TO APPROATE LEVELS.
9. THIS SCHEMATIC REFLECTS PWA 1467010-06.
10. STATIC SENSITIVE, SPECIAL HANDLING PER AMPEX STD HEI-1.

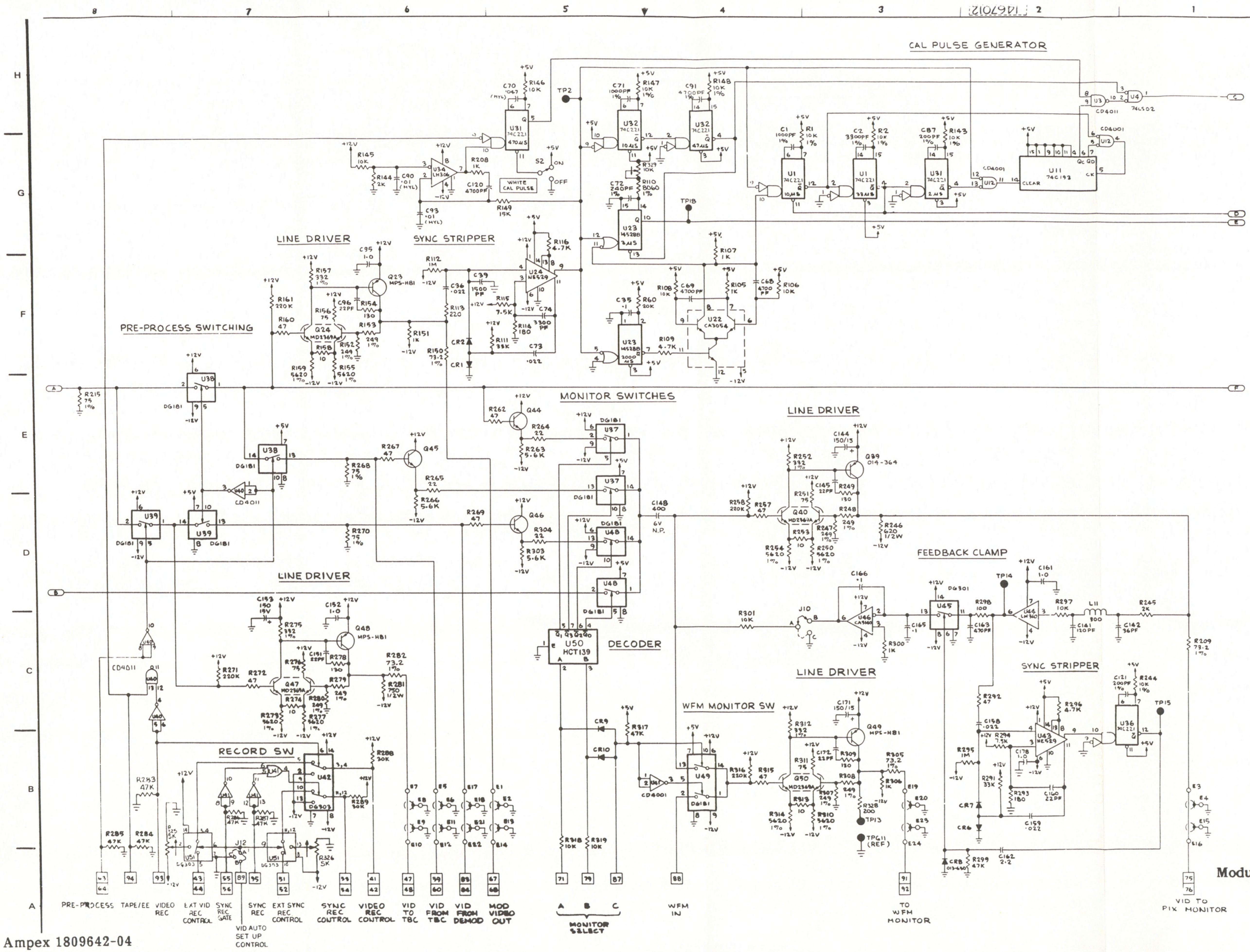
IC LIST

REF DES	U4	U11	U27	U1,31,32,36	U7.8.9.15.16	U22	U20,29,46	U12,41	U3,40,47	U2
AMPEX P/N	590-332	000-037	590-616	590-572	586-255	590-540	590-561	590-528	590-506	590-546
VENDOR P/N	74LS02	74C193	74221	74C221	CA3019	CA3054	CA3140E	CD4001BE	CD4011BE	CD4013BE
VOLTAGE (PIN)	+5 (14)	+5 (16)	+5 (16)	+5 (16)	—	—	+12(7) -12(4)	+5 (14)	+5 (14)	+5 (14)
GROUND	7	8 10	8	8 10	—	—	—	7 10	7 10	7 10
REF DES	U37,38,39,48,49	U28,30,45	U5,42,51	U10	U34	U25,44	U13,14	U21	U18	U17,19
AMPEX P/N	589-009	589-592	590-086	587-270	590-460	590-448	586-776	001-892	590-326	590-252
VENDOR P/N	DG181 BP	DG301CJ	DG303CJ	LH0002CN	LM306P	LM310P	MC1357P	MC79052CT	MC10131	MC10216
VOLTAGE (PIN)	+5(1)+12(6)-12(9)	+12(14)-12(8)	+12(14)-12(8)	+12(1,2)-12(4,5)	+12(8)-12(9)	+12(7)-12(4)	+12(13)	-12(2)-5.2(3)	-5.2 (8)	-5.2 (8)
GROUND	8 10	7 10	7 10	—	1	—	7,8	1	1,16	1,16
REF DES	U23	U50	U24,26,43	U33,35	U6					
AMPEX P/N	002-928	003-227	000-146	000-145	590-601					
VENDOR P/N	14528B	74HCT139	NE529	NE592	LF356					
VOLTAGE (PIN)	+5 (16)	+5 (16)	+5(14)+12(1)-12(4)	—	+12V(7)-12V(4)					
GROUND	8 10	8 10	10	—	—					

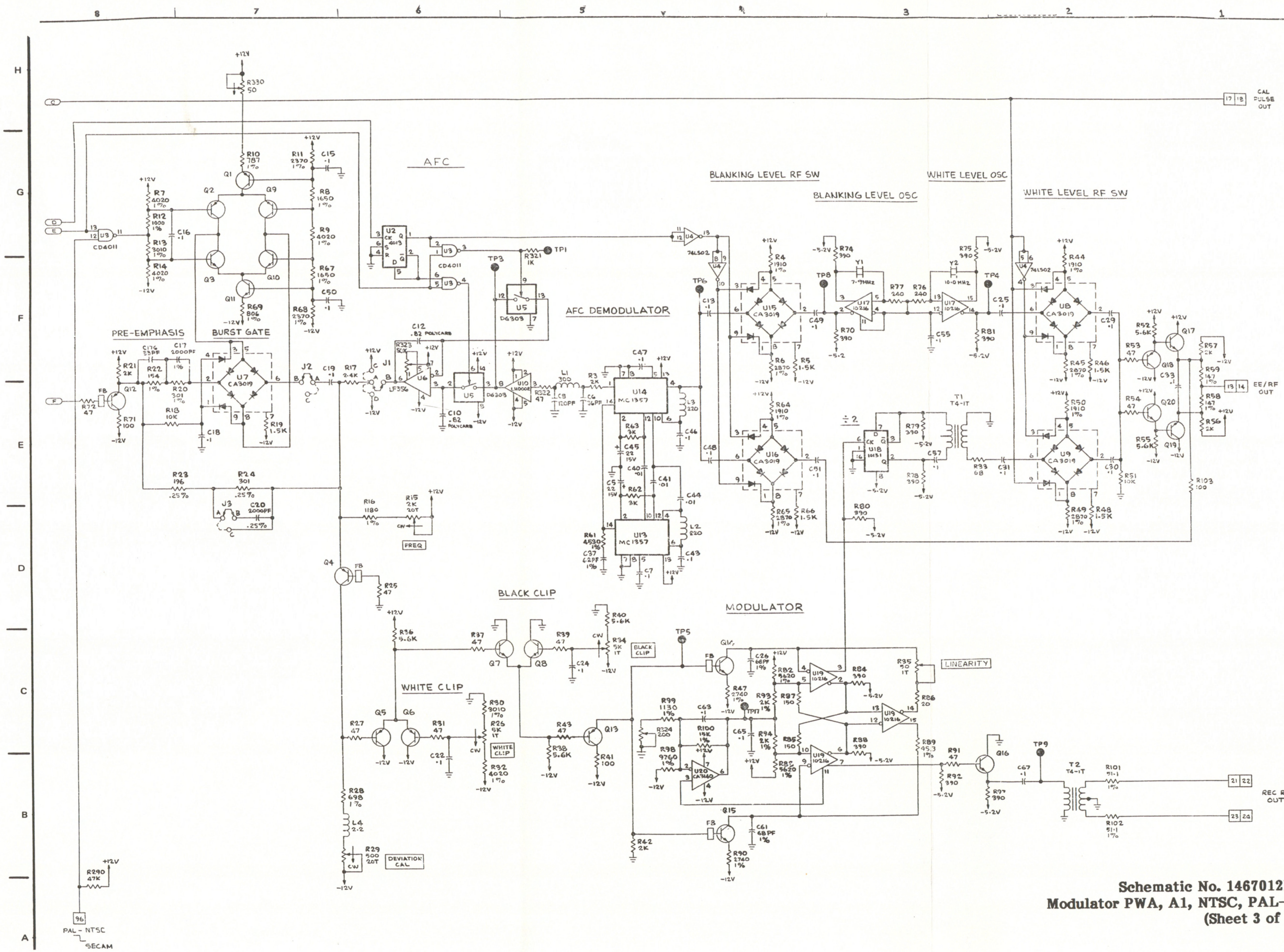
REF DESIGNATIONS

LAST USED	NOT USED
C179	
CR10	
E34	
FL3	
J12	
L11	
Q50	
R331	R195
S2	S1
T3	
TP18	
TPG11	TPG5
U51	
VR5	

Schematic No. 1467012L.
Modulator PWA, A1, NTSC, PAL-M
(Sheet 1 of 3)



Schematic No. 1467012L.
Modulator PWA, A1, NTSC, PAL-M
(Sheet 2 of 3)



Schematic No. 1467012L.
Modulator PWA, A1, NTSC, PAL-M
(Sheet 3 of 3)

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07
1										
2										
3	1467015	SCHEMATIC		F	G	H	J	K	L	M
4	1467780-01	PIGGYBACK, VID/SYNC REC. CONTROL SW.						1	1	-
5	1400004-01	EJECTOR, PWB		1	1	1	1	1	1	1
6	1467008-AB	LABEL		1	1	1	1	1	1	1
7	1467009-01	SHIELD		1	1	1	1	1	1	1
8	250-155	BUMPER, PAD, SYNTHETIC RUBBER		3	3	3	3	3	3	3
9	283-105	SPACER, PLAIN, .140 ID X .250 OD X .125 LG		1	1	1	1	1	1	1
10	471-063	SCREW, MACH, PAN HD, XREC, 4-40 X .438 LG		1	1	1	1	1	1	1
11	474-500	SCREW, MACH, PAN HD, XREC, 4-40 X .312 LG		7	7	7	7	7	7	7
12	502-002	WASHER, LOCK, HELICAL SPRING, #4		1	1	1	1	1	1	1
13	506-011	WASHER, BOWED		1	1	1	1	1	1	1
14										
15										
16										
17	1379491-AT	TRANSFORMER, VAR, BIFILAR, 5.4uH	T3	1	1	1	1	1	1	1
18										
19										
20	1467007-01	SHAFT EXTENSION, POTENTIOMETER	REF: R211	1	1	1	1	1	1	1
21										
22										
23										
24										
25	064-314	CAPACITOR, CER, MONO, 1.0uF, 50V, 20%	C86,95,98,152, 161,178	6	6	6	6	6	6	6
26	064-316	2.2uF, 50V, 20%	C59,81,82,85, 118,162	6	6	6	6	6	6	6
27	064-652	.01uF, 50V, 20%	C40,41,44	3	3	3	3	3	3	3
28	064-651	220pF, 100V, 5%	C179	-	1	1	1	1	1	1
29	064-653	0.1uF, 50V, 20%	C3,4,7,9,11, 13-16,18,19,	75	75	75	75	75	75	75
30		21-25,28-31,33-35,38,42,43,46-53, 55-58,60,63-67,83,88,89,92,94,97,								
31		110-112,119,129,132,133,137,143,149, 150,154-157,164-170,173,174,177								
32										
33										
34										
35	064-665	56pF, 100V, 5%	C147	1	1	1	1	1	1	1
36	064-668	300pF, 100V, 5%	C122	1	1	1	1	1	1	1
37	064-671	CAPACITOR, CER, MONO, 22pF, 100V, 5%	C96,99,145, 151,160,172	6	6	6	6	6	6	6

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AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467013 SHEET 2	REV N

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07
				QTY REQD PER DASH NUMBER						
38	064-674	CAPACITOR, CER, MONO, 330pF, 50V, 1%	C117,138	2	2	2	2	2	2	2
39	064-680	130pF, 50V, 1%	C104	1	1	1	1	1	1	1
40	064-682	220pF, 50V, 1%	C101	1	1	1	1	1	1	1
41	064-675	82pF, 50V, 1%	C37	1	1	1	1	1	1	1
42	064-684	100pF, 50V, 1%	C102,105	2	2	2	2	2	2	2
43	064-685	200pF, 50V, 1%	C87,121	2	2	2	2	2	2	2
44	064-686	150pF, 50V, 1%	C106	1	1	1	1	1	1	1
45										
46	064-688	10pF, 50V, ±.5pF	C116,136,140	3	3	3	3	3	3	3
47	064-689	110pF, 50V, 1%	C109	1	1	1	1	1	1	1
48	064-699	390pF, 50V, 1%	C54	1	1	1	1	1	1	1
49										
50	064-707	15pF, 100V, 5%	C130,131	2	2	2	2	2	2	2
51	064-709	120pF, 100V, 5%	C8,76,141	3	3	3	3	3	3	3
52	064-713	36pF, 100V, 5%	C6,75,142	3	3	3	3	3	3	3
53										
54	064-717	110pF, 100V, 5%	C146	1	1	1	1	1	1	1
55	064-727	68pF, 50V, 1%	C26,61	2	2	2	2	2	2	2
56	064-732	240pF, 50V, 1%	C72	1	1	1	1	1	1	1
57										
58	064-733	510pF, 50V, 1%	C100	1	1	1	1	1	1	1
59	064-740	62pF, 50V, 1%	C108	1	1	1	1	1	1	1
60	064-764	470pF, 50V, 5%	C107,163	2	2	2	2	2	2	2
61										
62	064-765	1500pF, 50V, 5%	C39	1	1	1	1	1	1	1
63	064-767	4700pF, 50V, 5%	C68,69,120	3	3	3	3	3	3	3
64	064-768	3300pF, 50V, 5%	C74,79	2	2	2	2	2	2	2
65	064-775	20pF, 50V, ±.5pF	C176	1	1	1	1	1	1	1
66	064-785	47pF, 50V, ±.5pF	C103	1	1	1	1	1	1	1
67	064-788	36pF, 50V, ±.5pF	C134	1	1	1	1	1	1	1
68	064-819	1000pF, 50V, 1%	C1,71,84	3	3	3	3	3	3	3
69										
70	064-825	2200pF, 50V, 1%	C80	1	1	1	1	1	1	1
71	064-826	3300pF, 50V, 1%	C2	1	1	1	1	1	1	1
72	064-828	CAPACITOR, CER, MONO, 4700pF, 50V, 1%	C91	1	1	1	1	1	1	1
73										
74										
75										
76										
77										
78	034-329	CAPACITOR, MICA, 1000pF, 500V, 1%	C17	1	1	1	1	1	1	1
79	034-372	620pF, 500V, 1%	C128	1	1	1	1	1	1	1
80	056-836	262pF, 500V, 1%	C123,127	2	2	2	2	2	2	2
81										
82	056-840	CAPACITOR, MICA, 1000pF, 500V, .25%	C20	1	1	1	1	1	1	1

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AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467013 SHEET 3	REV N

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07
83	056-838	CAPACITOR, MICA, 578pF, 300V, 1%	C124,126	2	2	2	2	2	2	2
84	056-839	CAPACITOR, MICA, 611pF, 300V, 1%	C125	1	1	1	1	1	1	1
85										
86										
87										
88	069-092	CAPACITOR, POLY, .047uF, 50V, 5%	C70	1	1	1	1	1	1	1
89	069-097	↕ ↕ .022uF, 50V, 5%	C36,73,77,78, 158,159	6	6	6	6	6	6	6
90	069-100	CAPACITOR, POLY, .01uF, 50V, 5%	C90,93	2	2	2	2	2	2	2
91										
92	069-148	CAPACITOR, POLYCARB, .82uF, 100V, 1%	C10,12	2	2	2	2	2	2	2
93										
94										
95	037-062	CAPACITOR, TANT, 56uF, 6V, 10%	C62	1	1	1	1	1	1	1
96	037-186	120uF, 10V, 10%	C175	1	1	1	1	1	1	1
97	037-380	400uF, 6V, $^{-15}_{+75}$% (NON-PLZD)	C148	1	1	1	1	1	1	1
98										
99	037-507	150uF, 15V, 10%	C27,32,113,114, 144,153,171	7	7	7	7	7	7	7
100	037-740	33uF, 10V, 10%	C135	1	1	1	1	1	1	1
101	037-991	CAPACITOR, TANT, 22uF, 15V, 10%	C5,45	2	2	2	2	2	2	2
102										
103										
104										
105										
106	038-292	CAPACITOR, VAR, PISTON, 1-10pF	C115,139	2	2	2	2	2	2	2
107										
108										
109										
110										
111	017-214	CRYSTAL UNIT, 7.68MHz, CR-60A/U	Y1	1	1	1	1	1	1	1
112	017-215	CRYSTAL UNIT, 8.9MHz, CR-60A/U	Y2	1	1	1	1	1	1	1
113										
114										
115										
116	013-042	DIODE, GERMANIUM, IN949	CR5	-	1	1	1	1	1	1
117	013-166	DIODE, ZENER, IN746A, 3.3V	VR2,3	2	2	2	2	2	2	2
118	013-257	ZENER, IN753A, 6.2V	VR4,5	2	2	2	2	2	2	2
119	013-650	GERMANIUM, CD498	CR5,8	2	-	-	-	-	-	-
120	013-650	GERMANIUM, CD498	CR8	-	1	1	1	1	1	1
121	013-689	SWITCHING, CD6016	CR1,2,3,4,6, 7,9,10	8	8	8	8	8	8	8
122	013-983	DIODE, ZENER, IN752A, 5.6V	VR1	1	1	1	1	1	1	1
123										
124										
125										
126										
127	051-770	FERRITE-CHOKE	FL1-3	3	3	3	3	3	3	3

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AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467013 SHEET 4	REV N

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07
128	051-281	INDUCTOR, FIXED, 0.1uH, 20%	L6		1	1	1	1	1	1
129										
130										
131	068-327	300uH, 5%	L1,5,11		3	3	3	3	3	3
132	068-064	300uH, 5%	L1,5,11	3	-	-	-	-	-	-
133	068-242	2.58uH, 1.25%	L7,10	2	2	2	2	2	2	2
134	068-243	3.09uH, 1.25%	L8,9	2	2	2	2	2	2	2
135										
136										
137										
138	540-003	220uH, 5%	L2,3	2	2	2	2	2	2	2
139	540-009	INDUCTOR, FIXED, 2.2uH, 10%	L4		1	1	1	1	1	1
140										
141										
142										
143										
144	000-037	INTEGRATED CIRCUIT, 74C193 ⊳1	U11	1	1	1	1	1	1	1
145										
146										
147										
148	586-255	CA3019	U7,8,9,15,16	5	5	5	5	5	5	5
149										
150										
151										
152	000-145	NE592	U33,35	2	2	2	2	2	2	2
153	001-892	MC7905.2CT	U21		1	1	1	1	1	1
154										
155										
156										
157	589-009	DG181BP ⊳1	U37,38,39, 48,49	5	5	5	5	5	5	5
158	000-146	NE529	U24,26,43	3	3	3	3	3	3	3
159	589-592	DG301CJ ⊳1	U28,30,45	3	3	3	3	3	3	3
160										
161										
162										
163	590-086	DG303CJ ⊳1	U5,42,51	2	2	2	2	2	2	3
164	590-252	MC10216	U17,19	2	2	2	2	2	2	-
165	590-326	MC10131	U18	1	-	1	1	1	1	1
166										
167	590-332	74LS02	U4	1	1	1	1	1	1	1
168	000-076	MC14556B ⊳1	U50	1	1	1	-	-	-	-
169	590-448	LM310P	U25,44	2	2	2	2	2	2	2
170	003-237	74HCT139 ⊳3	U50				1	1		1
171	590-460	LM306P	U34	1	1	1	1	1	1	1
172	002-928	INTEGRATED CIRCUIT, MC14528B ⊳1	U23	1	1	1	1	1	1	1

LM-1467013

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07
173	590-506	INTEGRATED CIRCUIT, CD4011BE	U3,40,47	3	3	3	3	3	3	3
174	590-528	CD4001BE	U12,41	2	2	2	2	2	2	2
175	586-776	MC1357P	U13,14	2	2	2	2	2	2	2
176										
177	590-540	CA3054	U22	1	1	1	1	1	1	1
178	590-546	CD4013BE	U2	1	1	1	1	1	1	1
179	590-561	CA3140E	U20,29,46	3	3	3	3	3	3	3
180	590-601	LF356	U6	1	1	1	1	1	1	1
181	590-572	74C221	U1,31,32,36	4	4	4	4	4	4	4
182	590-616	74221	U27	1	1	1	1	1	1	1
183	587-270	INTEGRATED CIRCUIT, LH0002CN	U10	1	1	1	1	1	1	1
184										
185										
186										
187										
188	066-660	RESISTOR, C.F., 22 OHM, .25W, 5%	R231,264,265,304	4	4	4	4	4	4	4
189	066-663	220	R113,217,220	3	3	3	3	3	3	3
190	066-665	1K	R105,107,151,208,300,306,321	7	7	7	7	7	7	7
191										
192	066-662	200	R328	1	1	1	1	1	1	1
193	066-667	3K	R62,63,136,190,194,218,219	7	7	7	7	7	7	7
194										
195										
196	066-668	4.7K	R109,116,125,296	4	4	4	4	4	4	4
197	066-673	1.0M	R112,121,295	3	3	3	3	3	3	3
198	066-677	68	R33	1	1	1	1	1	1	1
199	066-689	2.2K	R131	-	1	1	1	1	1	1
200	066-689	2.2K	R131,331	2	-	-	-	-	-	-
201	066-711	7.5K	R115,124,294	3	3	3	3	3	3	3
202	066-717	47K	R104,127,283-287,290,299,302,317	1	11	11	11	11	11	11
203										
204										
205	066-718	5.6K	R36,38,40,52,55,232,259,261,263,266,303	1	11	11	11	11	11	11
206										
207										
208	066-720	3.3K	R129	1	1	1	1	1	1	1
209	066-810	10	R158,170,253,274,313	5	5	5	5	5	5	5
210	066-812	100	R41,71,103,119,298	5	5	5	5	5	5	5
211										
212	066-813	150	R85,87	2	2	2	2	2	2	2
213	066-816	390	R70,74,75,78-81,84,88,92,97	1	11	11	11	11	11	11
214										
215										
216	066-824	RESISTOR C.F., 1.5K OHM, .25W, 5%	R5,19,46,48,66	5	5	5	5	5	5	5
217										

LM-1467013

AMPEX Ampex Corporation, Redwood City, California	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467013 SHEET 6	REV N

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07
218	066-826	RESISTOR, C.F., 2K OHM, .25W, 5%	R3,21,42,56, 57,117,144,	10	10	10	10	10	10	10
219			238,239,245							
220										
221	066-830	10K	R18,51,106, 108,118,145,	11	11	11	11	11	11	11
222			146,297,301, 318,319							
223										
224	066-837	130	R154,166,249, 278,309	5	5	5	5	5	5	5
225	066-838	330	R216,221	2	-	-	-	-	-	-
226	066-846	30K	R236,288,289	3	3	3	3	3	3	3
227	066-838	330	R216,221,331	-	3	3	3	3	3	3
228	066-847	33K	R111,120,291	3	3	3	3	3	3	3
229	066-865	12K	R149	1	1	1	1	1	1	1
230	066-859	240	R76,77	2	2	2	2	2	2	2
231										
232	066-873	20K	R60	1	1	1	1	1	1	1
233	066-913	220K	R161,172,258, 271,316	5	5	5	5	5	5	5
234	066-928	2.4K	R17	1	1	1	1	1	1	1
235										
236	066-935	15	R210	1	1	1	1	1	1	1
237	066-938	RESISTOR, C.F., 47 OHM, .25W, 5%	R25,27,31,37, 39,43,53,54,	31	31	31	31	31	31	31
238		72,91, 122,160,186,187,193,203,204,233,								
239		235,240,241,256,257,260,262,267,269,272, 292,315,322								
240										
241										
242										
243	076-004	RESISTOR, C.F., 180 OHM, .25W, 5%	R114,123,293	3	3	3	3	3	3	3
244	076-039	20	R86,327	2	2	2	2	2	2	2
245	076-045	75	R156,168,251, 276,311	5	5	5	5	5	5	5
246										
247	076-049	RESISTOR, C.F., 160K OHM, .25W, 5%	R234		1	1	1	1	1	1
248										
249					1					
250										
251	041-007	RESISTOR, FIXED, COMP, 750 OHM, .5W, 5%	R281	1	1	1	1	1	1	1
252	041-006	RESISTOR, FIXED, COMP, 620 OHM, .5W, 5%	R163,246	2	2	2	2	2	2	2
253	041-688	RESISTOR, FIXED, COMP, 75 OHM, 2W, 5%	R207	1	1	1	1	1	1	1
254										
255	079-246	RESISTOR, M.F., 252 OHM, .1[illegible]W, .25%	R23	1	1	1	1	1	1	1
256	079-248	RESISTOR, M.F., 612 OHM, .125W, .25%	R24	1	1	1	1	1	1	1
257										
258	042-331	RESISTOR, M.F., 16.9K OHM, .125W, 1%	R130	1	1	1	1	1	1	1
259										
260										
261	062-563	RESISTOR, M.F., 3.57K OHM, .125W, 1%	R61	1	1	1	1	1	1	1
262	062-623	RESISTOR, M.F., 976 OHM, .125W, 1%	R200	1	1	1	1	1	1	1

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AMPEX Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467013 SHEET 7	REV N

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07
263	062-624	RESISTOR, M.F., 1K OHM, .125W, 1%	R12,128,199	3	3	3	3	3	3	3
264	062-625	1.21K	R320	1	1	1	1	1	1	1
265	062-639	3.01K	R13,30,214	3	3	3	3	3	3	3
266										
267	062-642	6.81K	R132,133,139, 140	4	4	4	4	4	4	4
268	062-643	2K	R93,94,222	3	3	3	3	3	3	3
269	062-694	15K	R100,175	2	2	2	2	2	2	2
270										
271	062-796	1.0M	R206,243	2	2	2	2	2	2	2
272	062-801	10	R180,185,228	3	3	3	3	3	3	3
273	062-805	24.3	R197,237	2	2	2	2	2	2	2
274	062-815	45.3	R89	1	1	1	1	1	1	1
275	062-822	51.1	R101,102	2	2	2	2	2	2	2
276	062-834	73.2	R150,162,209, 282,305	5	5	5	5	5	5	5
277	062-836	75	R142,215,268, 270	4	4	4	4	4	4	4
278										
279	062-863	147	R58,59	2	2	2	2	2	2	2
280	062-875	210	R22	1	1	1	1	1	1	1
281										
282										
283	062-879	237	R173,176,224, 225	4	4	4	4	4	4	4
284	062-880	249	R152,153,164, 165,247,248, 255,279,280, 307,308	11	11	11	11	11	11	11
285										
286										
287	079-249	612	R20	1	1	1	1	1	1	1
288	062-887	332	R157,169,252, 275,312	5	5	5	5	5	5	5
289	062-910	619	R134	1	1	1	1	1	1	1
290										
291	062-918	825	R198,201	2	2	2	2	2	2	2
292	066-921	294	R212,223	2	2	2	2	2	2	2
293	062-929	1.15K	R174	1	1	1	1	1	1	1
294										
295	062-935	1.65K	R8,67	2	2	2	2	2	2	2
296	062-936	1.74K	R188,192,227, 229	4	4	4	4	4	4	4
297	062-944	2.37K	R11,68	2	2	2	2	2	2	2
298										
299	062-945	2.43K	R189,191,226, 230	4	4	4	4	4	4	4
300	062-950	2.74K	R47,90,138	3	3	3	3	3	3	3
301	062-952	2.87K	R6,45,49,65	4	4	4	4	4	4	4
302										
303	062-958	3.74K	R183		1	1	1	1	1	1
304	062-962	4.02K	R7,9,14,32	4	4	4	4	4	4	4
305										
306										
307	062-965	RESISTOR, M.F., 4.64K OHM, .125W, 1%	R179	1	1	1	1	1	1	1

AMPEX Ampex Corporation Redwood City, California	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467013 SHEET 8	REV N

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07
308	062-966	RESISTOR, M.F., 4.75K OHM, .125W, 1%	R181	1	1	1	1	1	1	1
309	062-968	4.99K	R177	1	1	1	1	1	1	1
310	062-972	5.62K	R82,83,155, 159,167,171,	12	12	12	12	12	12	12
311			250,254,273, 277,310,314							
312	062-980	8.06K	R110	1	1	1	1	1	1	1
313	062-979	7.87K	R178	1	1	1	1	1	1	1
314	062-982	9.09K	R213	1	1	1	1	1	1	1
315	062-983	10K	R1,2,73, 143,147,148,	7	7	7	7	7	7	7
316			244							
317										
318	062-995	16.5K	R141	1	1	1	1	1	1	1
319										
320										
321										
322	066-011	39.2K	R126	1	1	1	1	1	1	1
323	066-014	47.5K	R202,242	2	2	2	2	2	2	2
324	066-064	52.3K	R182	1	1	1	1	1	1	1
325										
326	066-159	1.78K	R184	1	1	1	1	1	1	1
327	066-174	806	R69	1	1	1	1	1	1	1
328	066-175	1.18K	R16	1	1	1	1	1	1	1
329										
330	066-441	698	R28	1	1	1	1	1	1	1
331	066-454	1.91K	R4,44,50,64	4	4	4	4	4	4	4
332	066-802	9.76K	R98	1	1	1	1	1	1	1
333	066-793	787	R10	1	1	1	1	1	1	1
334	066-925	22.1K	R137	1	1	1	1	1	1	1
335										
336										
337										
338	066-751	RESISTOR, M.F., 1.13K OHM, .125W, 1%	R99	1	1	1	1	1	1	1
339										
340										
341										
342										
343	044-940	RESISTOR, VARIABLE, 50 OHM, .5W, 20%	R35,135,330	3	3	3	3	3	3	3
344	044-944	5K 20%	R26,34	2	2	2	2	2	2	2
345	044-891	200 20%	R324	1	1	1	1	1	1	1
346										
347	058-001	50K 20%	R323	1	1	1	1	1	1	1
348	058-474	500 10%	R211	1	1	1	1	1	1	1
349	058-540	5K 10%	R96,205	2	2	2	2	2	2	2
350	058-564	500 10%	R29,196	2	2	2	2	2	2	2
351	058-611	10K 20%	R329	1	1	1	1	1	1	1
352	058-651	RESISTOR, VARIABLE, 2K OHM, .5W, 10%	R15	1	1	1	1	1	1	1

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AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467013 SHEET 9	REV N

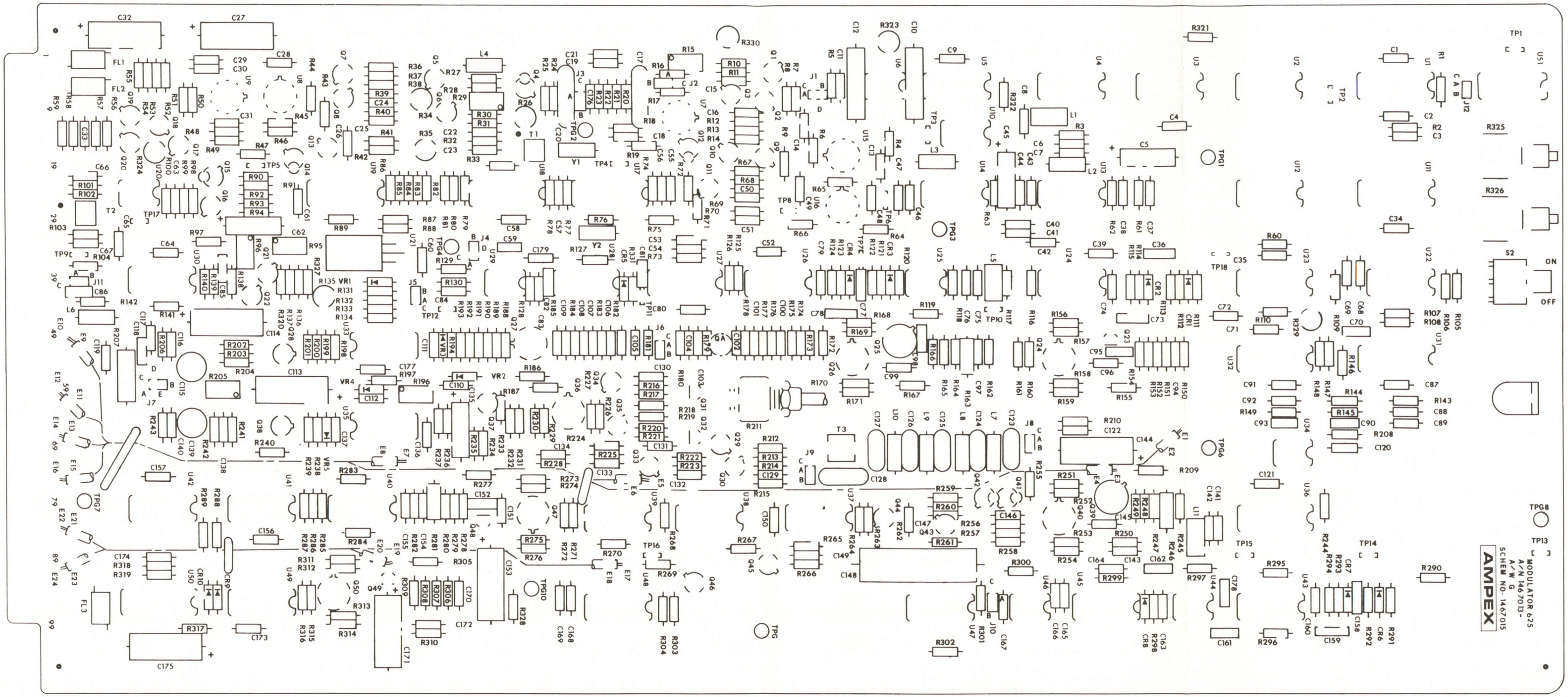
ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07
353	058-893	RESISTOR, VARIABLE, 200K OHM, .5W, 10%	R95	1	1	1	1	1	1	1
354	058-459	RESISTOR, VARIABLE, 5K OHM, .5W, 10%	R325,326	2	2	2	2	2	2	2
355										
356										
357										
358	014-364	TRANSISTOR, TC50212	Q25,39	2	2	2	2	2	2	2
359	014-505	↑ 2N3251	Q1,2,4-6,9,12, 13,18,19,22,	14	14	14	14	14	14	14
360			29,33,43							
361		↓								
362	014-581	TRANSISTOR, 2N2369A	Q3,7,8,10,11, 14-17,20,21,	20	20	20	20	20	20	20
363			30,34,35,37, 41,42,44-46							
364										
365	014-697	TRANSISTOR, MD3251A	Q27,36	2	2	2	2	2	2	2
366	014-852	TRANSISTOR, MD2369A	Q24,26,40,47, 50	5	5	5	5	5	5	5
367	580-840	TRANSISTOR, MPSH81	Q23,31,32, 48,49	5	5	5	5	5	5	5
368	580-971	TRANSISTOR, FET, U440	Q28,38	2	2	2	2	2	2	2
369										
370	075-273	RESISTOR, MTG PLATE	REF: R211,325,326	3	3	3	3	3	3	3
371	075-274	RESISTOR, WIRING BOARD	REF: R211,325,326	3	3	3	3	3	3	3
372										
373										
374										
375	087-388	SILICONE, COMPOUND, GREASE, HEAT CONDUCTIVE	REF: U21	A/R	A/R	A/R	A/R	-	-	-
376										
377										
378	119-279	SWITCH, TOGGLE, DPDT	S1	1	1	1	1	-	-	-
379	120-967	SWITCH, TOGGLE, SPDT	S2	1	1	1	1	1	1	1
380										
381										
382										
383	140-437	CONNECTOR, SIGNAL CIRCUIT, PLUG, RECT, 2 SOCKETS	J1-12	11	11	11	11	11	11	12
384										
385										
386										
387	187-055	TERMINAL, WIREWRAP	J1-ABCD,J2-ABC,J3-ABC, J4-ABCD,J5-ABC,J6-ABC,	37	37	37	37	37	37	40
388			J7-ABCDE,J8-ABC,J9-ABC, J10-ABC,J11-ABC,J12-ABC							
389										
390	187-259	TERMINAL, PC, TEST POINT	TP1-18	18	18	18	18	18	18	18
391										
392										
393										
394										
395										
396	280-998	TRANSISTOR, MTG HDW, MTG PAD, TO-5	REF: Q25,39	2	2	2	2	2	2	2
397										

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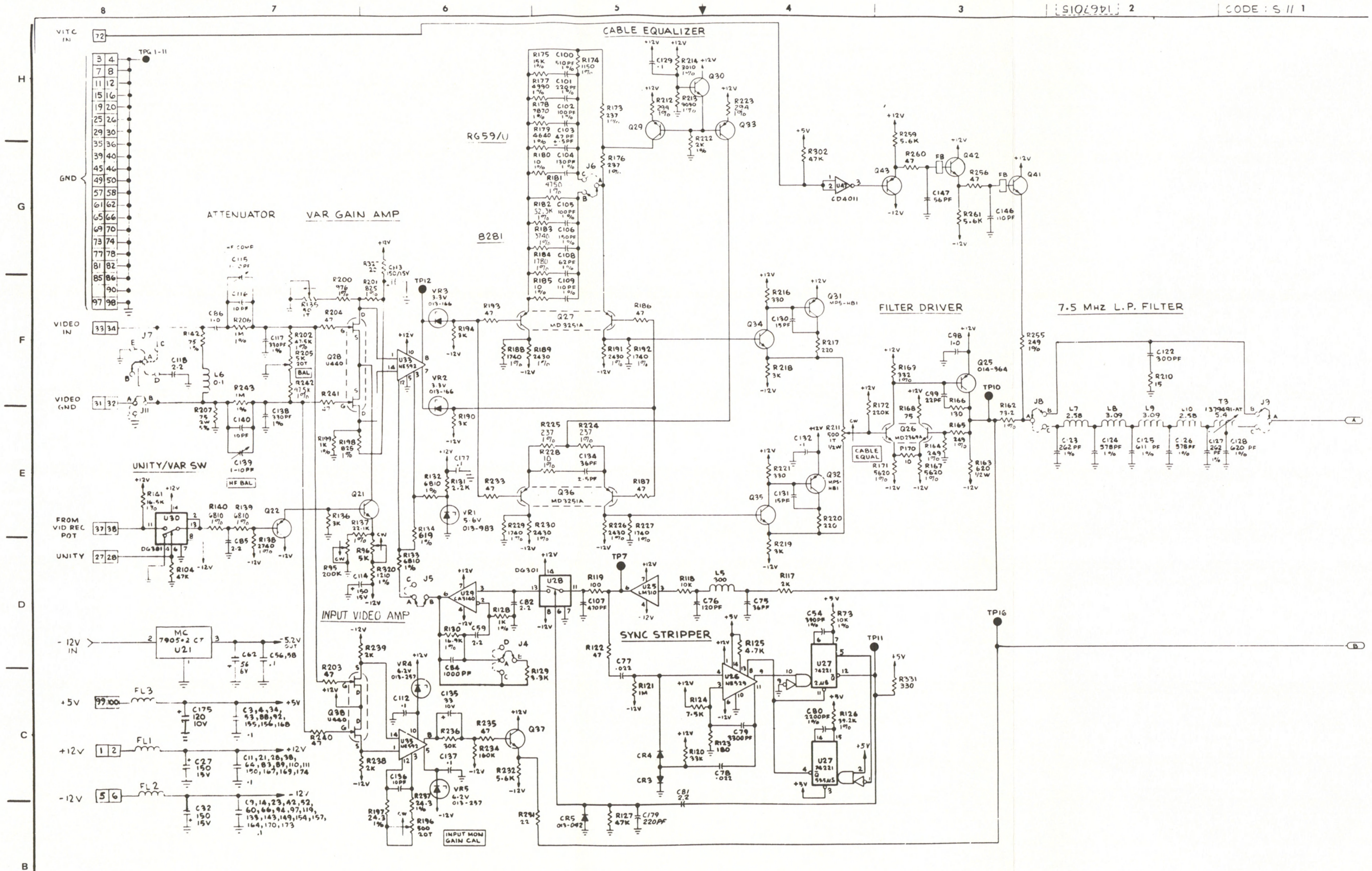
AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467013 SHEET 10	REV N

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05	-06	-07
398	231-041	SHAFT PART, COUPLING, RIGID	REF: R211		1	1	1	1	1	1
399										
400										
401										
402	290-192	BRACKET, 90° ANGLE MTG	REF: 211	1	1	1	1	1	1	1
403	302-395	STRAP, CABLE, "MOUSETAIL"		3	3	3	3	3	3	3
404	435-122	CLIP, CRADLE	REF: Y1,2	2	2	2	2	2	2	2
405	460-011	RIVET, OVAL HD, TUBULAR	REF: Y1,2	4	4	4	4	4	4	4
406										
407										
408	471-060	SCREW, MACH, PAN HD, XREC DR, 4-40 X .250 LG	REF: U21, R211	2	2	2	2	2	2	2
409	472-113	SCREW, MACH. PAN HD, XREC DR, 2-56 X .250	REF: PIGGYBACK					1	1	-
410										
411	496-004	NUT, HEX CAPTIVE, WASHER, 4-40	REF: U21, R211	2	2	2	2	2	2	2
412										
413										
414	502-001	WASHER, LOCK, HELICAL SPRING #2,	REF: PIGGYBACK					1	1	-
415										
416										
417	570-435	TRANSFORMER, WIDEBAND, T4-1T	T1,2	2	2	2	2	2	2	2
418										
419										
420	582-167	TRANSISTOR MTG HDW, INSULATOR MICA	REF: U21	1	1	1	1	-	-	-
421	582-378	TRANSISTOR, MTG. HDW. INSULATOR, SILICONE RUBBER	REF: U21					1	1	1
422	615-154	WIRE, SOLID INSUL., 30 AWG	REF: PIGGYBACK E25-28					A/R	A/R	-
423	616-569	CABLE, COAXIAL, SINGLE CIRCUIT, 75 OHM		A/R	A/R	A/R	A/R	A/R	A/R	A/R
424										
425										
426	932-035	SHIELDING, BEAD	REF: BASE Q4, 12,14,15,41, 42	6	6	6	6	6	6	6
427										
428										
429										
430										
431										
432										
433										
434										
435										
436										
437										
438										
439		NOTES:								
440		1 — STATIC SENSITIVE, SPECIAL HANDLING REQUIRED PER AMPEX STANDARD HE1-1.								
441										
442										

LM-1467013



Assembly No. 1467013-07N.
Modulator PWA, A1, PAL/SECAM



NOTES: UNLESS OTHERWISE SPECIFIED

1. RESISTORS IN OHMS, 1/4 W, 5%
2. CAPACITORS IN MICROFARADS
3. INDUCTORS IN MICROHENRIES
4. DIODES ARE 013-689.
5. NPN TRANSISTORS ARE 014-581.
6. PNP TRANSISTORS ARE 014-505.
7. ALL ANALOG SWITCHES ARE SHOWN IN LOGIC (1) POSITION.
8. ALL UNUSED CMOS I.C. INPUTS ARE TIED TO APPROPRIATE LEVELS.
9. THIS SCHEMATIC REFLECTS PWA 1467013-07.

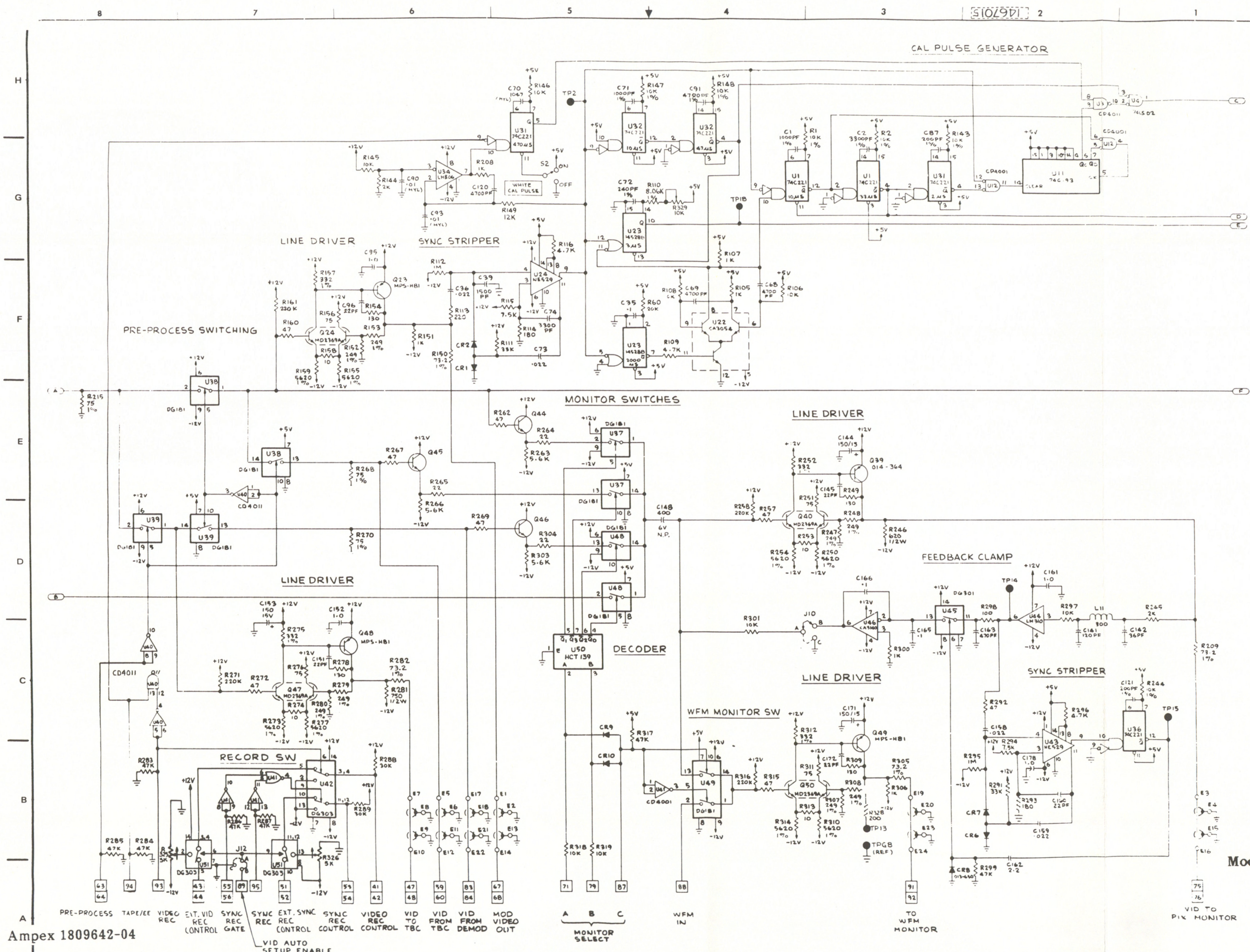
(10) STATIC SENSITIVE, SPECIAL HANDLING REQ'D PER AMPEX STD HEI-1.

IC LIST

REF DES	U4	U11	U27	U1,31,32,36	U7,8,9,15,16	U22	U20,29,46	U12,41	U3,40,47	U2
AMPEX P/N	570-332	000-037	590-616	590-572	586-255	590-540	590-561	590-528	590-506	590-546
VENDOR P/N	74LS02	740193	74221	74C221	CA3019	CA3054	CA3140E	CD4001BE	CD4011BE	CD4013BE
VOLTAGE (PIN)	+5 (14)	+5 (16)	+5 (16)	+5 (16)	—	—	+12(7) −12(4)	+5 (14)	+5 (14)	+5 (14)
GROUND	7	8 (10)	8	8 (10)	—	—	—	7 (10)	7 (10)	7 (10)
REF DES	U37,38,39 40,49	U28,30,45	U5,42,51	U10	U34	U25,44	U13,14	U21	U18	U17,19
AMPEX P/N	589-009	589-592	590-086	587-270	590-460	590-448	586-776	001-892	590-326	590-252
VENDOR P/N	DG181 BP	DG 301 CJ	DG 303 CJ	LH0002 CN	LM 306 P	LM 310P	MC 1357 P	MC 79052 CT	MC 10131	MC 10216
VOLTAGE (PIN)	+5(7)+12(6)−12(9)	+12(14)−12(8)	+12(14)−12(8)	+12(1,2)−12(4,5)	+12(8)−12(4)	+12(7)−12(4)	+12 (13)	−12(2)−5.2(3)	−5.2 (8)	−5.2 (8)
GROUND	8 (10)	7 (10)	7 (10)	—	1	—	7,8	1	1,16	1,16
REF DES	U23	U50	U24,26,43	U33,35	U6					
AMPEX P/N	002-928	003-237	000-146	000-145	590-601					
VENDOR P/N	14528 B	74 HCT 139	NE 529	NE 592	LF 356					
VOLTAGE (PIN)	+5 (16)	+5 (16)	+5(14)+12(11)−12(6)	—	+12V(7) −12V(4)					
GROUND	8 (10)	8 (10)	10	—	—					

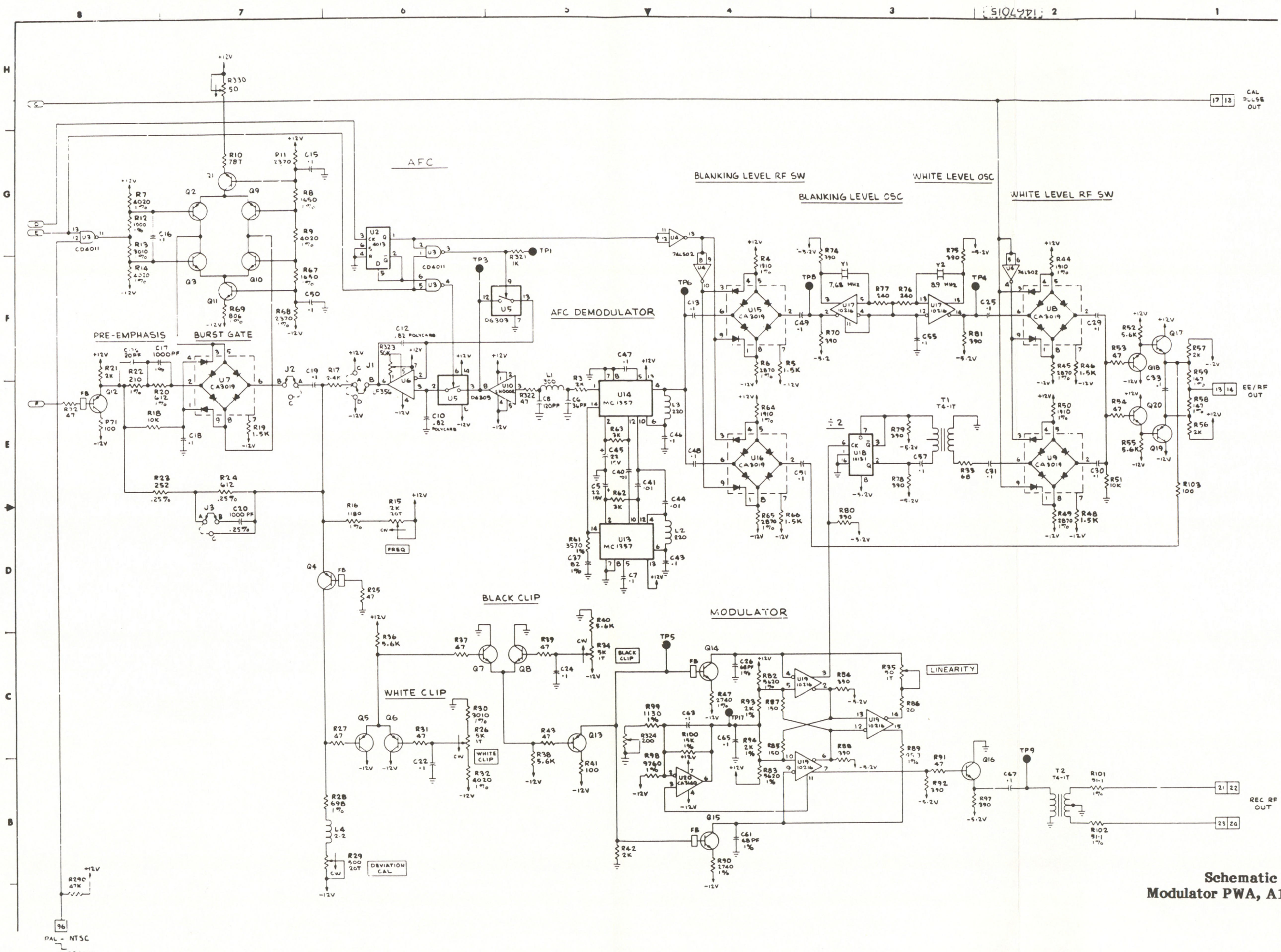
REF DESIGNATIONS	
LAST USED	NOT USED
C179	
CR10	
E34	
FL3	
J12	
L11	
Q50	
R331	R195
S2	S1
T3	
TP18	
TPG10	TPG5
U51	
VR5	

Schematic No. 1467015M.
Modulator PWA, A1, PAL/SECAM
(Sheet 1 of 3)

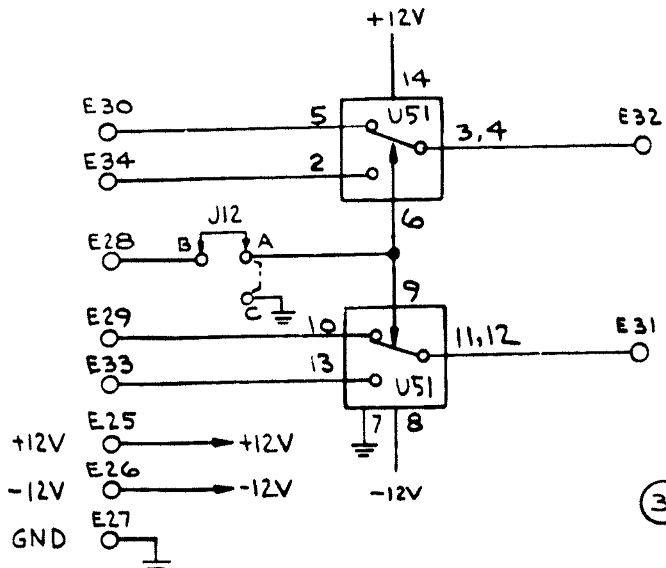


Schematic No. 1467015M.
Modulator PWA, A1, PAL/SECAM
(Sheet 2 of 3)

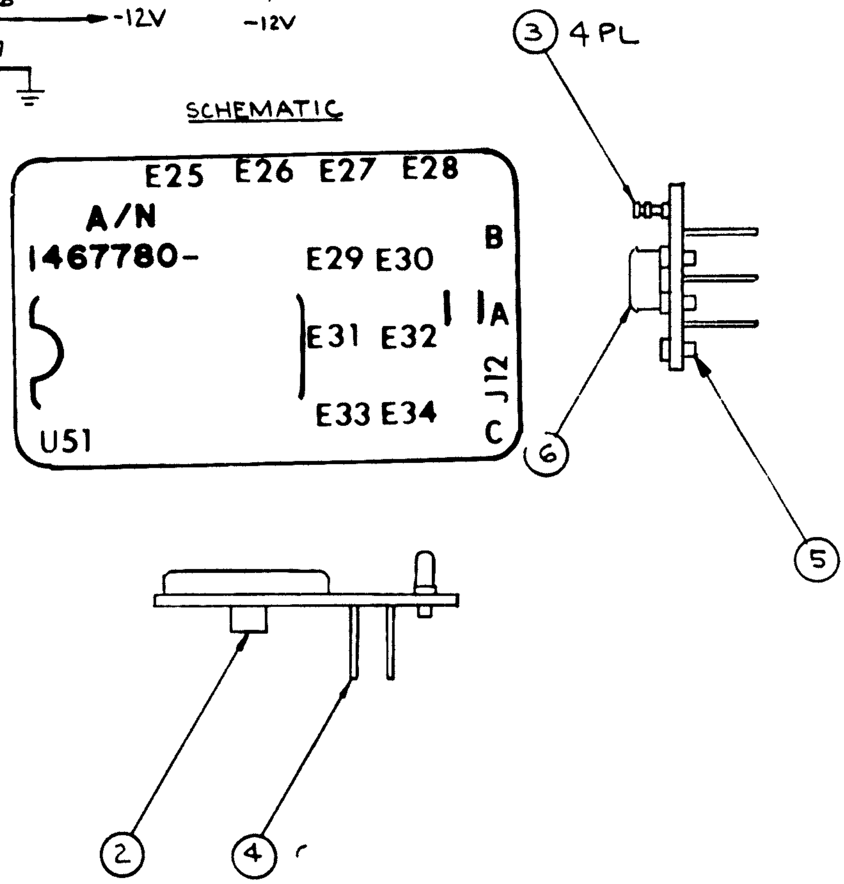
Ampex 1809642-04



Schematic No. 1467015M.
Modulator PWA, A1, PAL/SECAM
(Sheet 3 of 3)



SCHEMATIC



1	7	390-086	INTEGRATED CIRCUIT, DG303CJ	3 U51
1	6	602-044	PLUG, SHORTING, LOW PROFILE	(REF J12)
3	5	143-981	JACK, CLOSED ENTRY	J12-A,B,C
6	4	187-055	PIN, WIRE WRAP	E29-E34
4	3	173-067	TERMINAL TURRET	E25-E28
1	2	280-046	STANDOFF, SWAGE, 2-56 X .125 LG	
-02	1			
01		PART NUMBER		

Assembly No. 1467780-01A. Video/Sync Record Control Switch Piggyback PWA

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04
1							
2							
3	1467022	SCHEMATIC		F	G	H	J
4							
5	1400004-01	EJECTOR, PWB		1	1	1	1
6	1467008-AC	LABEL		1	1	1	1
7	1467009-01	SHIELD		1	1	1	1
8	250-155	BUMPER, PAD, SYNTHETIC RUBBER		3	3	3	3
9	283-105	SPACER, PLAIN, .140 ID x .250 OD X .125 LG		1	1	1	1
10	471-063	SCREW, MACH., PAN HD., XREC DR, 4-40 X .438 LG		1	1	1	1
11	474-500	SCREW, MACH., PAN HD., XREC DR, 4-40 X .312 LG		7	7	7	7
12	502-002	WASHER, LOCK, HELICAL SPRING, #4		1	1	1	1
13	506-011	WASHER, BOWED		1	1	1	1
14							
15							
16							
17	1374388-AE	INDUCTOR, VAR, 2.7uH	L4	1	1	1	1
18	1374388-AF	↕ ↕ 3.3uH	L7,8	2	2	2	2
19							
20							
21	1374388-AN	↕ ↕ 12uH	L1,2,9	3	3	3	3
22	1374388-AP	INDUCTOR, VAR, 15uH	L3	1	1	1	1
23							
24							
25							
26	1379491-AE	TRANSFORMER, VAR, 35.2uH	T4	1	1	1	1
27	1379491-AG	TRANSFORMER, VAR, 36uH	T2,3	2	2	2	2
28							
29							
30	064-307	CAPACITOR, CER., MONO, .22uF, 100V, 20%	C140		1	1	1
31	064-314	CAPACITOR, CER, MONO, 1.0uF, 50V, 20%	C38,39,41,42	4	4	4	4
32	064-316	↕ ↕ ↕ 2.2uF, 50V, 20%	C29,55,84,87,98,100,107,110	8	8	8	8
33							
34	064-651	220pF, 100V, 5%	C146	1	1	1	1
35	064-319	↕ ↕ ↕ 4.7uF, 50V, 20%	C111	1	1	1	1
36	064-652	CAPACITOR, CER, MONO, .01uF, 50V, 20%	C30,40,43,56,79,105	6	6	6	6
37							

LM-1467020

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467020 SHEET 2	REV N

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04
38	064-653	CAPACITOR, CER, MONO, 0.1uF, 50V, 20%	C9,18,19,21, 23,24,25,26,	60	60	60	60
39			27,28,31,32,33,35,36,37,50,51,54, 59,60,63-67,76,78, 81, 85,88,				
40			90,92, 96,97,99,104,109,112,113, 115-119,121,124,125,134,137-139,141,				
41			144,145,148,149,156,159,161				
42							
43							
44							
45	064-657	2pF, 50V, ±.5pF	C2,4,16	3	3	3	3
46	064-658	5pF, 50V, ±.5pF	C14	1	1	1	1
47	064-666	75pF, 100V, 5%	C120	1	1	1	1
48	064-668	300pF, 100V, 5%	C151,152	2	2	2	2
49	064-671	22pF, 100V, 5%	C95,114	2	2	2	2
50	064-674	330pF, 50V, 1%	C61	1	1	1	1
51							
52	064-676	39pF, 50V, ±.5pF	C164,165	2	2	2	2
53	064-678	50pF, 50V, 1%	C20,22	2	2	2	2
54	064-679	360pF, 50V, 1%	C69	1	1	1	1
55	064-683	160pF, 50V, 1%	C11	1	1	1	1
56							
57	064-690	1300pF, 50V, 1%	C158	1	1	1	1
58	064-694	200pF, 100V, 5%	C102,154	2	2	2	2
59	064-696	180pF, 50V, 1%	C5	1	1	1	1
60							
61	064-704	1000pF, 50V, 5%	C80,91,94,135, 136,147,160	7	7	7	7
62	064-709	120pF, 100V, 5%	C57,132	2	2	2	2
63	064-712	27pF, 100V, 5%	C52,53	2	2	2	2
64	064-713	36pF, 100V, 5%	C83,133	2	2	2	2
65	064-714	51pF, 100V, 5%	C168			1	1
66	064-716	91pF, 100V, 5%	C62	1	1	1	1
67	064-718	160pF, 100V, 5%	C77	1	1	1	1
68	064-721	130pF, 100V, 5%	C89	1	1	1	1
69							
70	064-727	68pF, 50V, 1%	C1	1	1	1	1
71	064-729	15pF, 50V, ±.5pF	C6	1	1	1	1
72	064-730	30pF, 50V, ±.5pF	C72,73	2	2	2	2
73							
74	064-735	24pF, 50V, ±.5pF	C7,48	2	2	2	2
75							
76	064-737	3pF, 50V, ± 5pF	C8	1	1	1	1
77							
78	064-762	100pF, 100V, 5%	C150,155	2	2	2	2
79							
80	064-764	470pF, 50V, 5%	C86	1	1	1	1
81	064-767	4700pF, 50V, 5%	C58	1	1	1	1
82	064-768	CAPACITOR, CER, MONO, 3300pF, 50V, 5%	C143	1	1	1	1

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AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467020 SHEET 3	REV N

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04
83	064-771	CAPACITOR, CER, MONO, 430pF, 50V, 1%	C46,68	2	2	2	2
84	064-775	↑ 20pF, 50V, ±.5pF	C3,47,71,127	4	4	4	4
85	064-778	6.8pF, 50V, ±.5pF	C70	1	1	1	1
86	064-781	27pF, 50V, ±.5pF	C128	1	1	1	1
87	064-788	36pF, 50V, ±.5pF	C129	1	1	1	1
88	064-793	↓ 8.2pF, 50V, ±.5pF	C12	1	1	1	1
89	064-825	CAPACITOR, CER, MONO, 2200pF, 50V, 1%	C157	1	1	1	1
90							
91							
92							
93							
94	056-833	CAPACITOR, MICA, 723pF, 300V, .25%	C131	1	1	1	1
95							
96	069-183	CAPACITOR, POLYESTER, 0.1uF, 50V, 1%	C122,163	2	2	2	2
97							
98	069-092	CAPACITOR, POLYESTER, .047uF, 50V, 5%	C101,123	2	2	2	2
99	069-097	CAPACITOR, POLYESTER, .022uF, 50V, 5%	C142	1	1	1	1
100	069-113	CAPACITOR, POLYESTER, 0.1uF, 50V, 5%	C103,153	2	2	2	2
101							
102	037-507	CAPACITOR, TANT., 150uF, 15V, 10%	C10,44	-	2	2	2
103	037-746	CAPACITOR, TANT., 47uF, 20V, 10%	C17,45	-	2	2	2
104	037-109	CAPACITOR, TANT, 10uF, 20V, 10%	C108	1	1	1	1
105	037-186	↑ 120uF, 10V, ↑	C162	1	1	1	1
106	037-746	47uF, 20V,	C10,17,44,45	4	-	-	-
107	037-246	↓ 180uF, 6V, ↓	C166,167	2	2	2	2
108	037-985	CAPACITOR, TANT, 15uF, 20V, 10%	C34,93	2	2	2	2
109	067-013	CAPACITOR, TANT, 20uF, 15V, 20%, N.P.	C106	1	1	1	1
110							
111							
112	038-248	CAPACITOR, VARIABLE, 15-60pF, 100V	C126	1	1	1	1
113							
114							
115							
116							
117	013-650	DIODE, GERMANIUM, CD498	CR7	1	1	1	1
118							
119	013-685	DIODE, SWITCHING, CD6016	CR1,2,3,4,5,6	6	6	6	6
120							
121	013-224	DIODE, ZENER, 1N754A, 6.8V	VR1	1	1	1	1
122							
123	013-962	DIODE, HOT CARRIER, 1N5711	CR8,9			2	2
124							
125							
126	051-770	FERRITE-CHOKE	FL1-3	3	3	3	3
127							

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AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467020 SHEET 4	REV N

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04
128							
129							
130							
131	540-003	INDUCTOR, FIXED, 220uH, 5%	L12	1	1	1	1
132	540-006	INDUCTOR, FIXED, 100uH, 5%	L6	1	1	1	1
133	540-008	INDUCTOR, FIXED, 680uH, 5%	L5	1	1	1	1
134							
135							
136							
137	068-064	INDUCTOR, FIXED, 300uH, 5%	L10,11	2	-	-	-
138	068-327	INDUCTOR, FIXED, 300uH, 5%	L10,11		2	2	2
139							
140							
141							
142	586-255	INTEGRATED CIRCUIT, CA3019	U4,7,20,33	4	4	4	4
143							
144							
145							
146	587-270	LH0002CN	U9	1	1	1	1
147	001-892	MC7905.2CT	U6	1	1	1	1
148							
149							
150							
151	000-146	NE529	U24,41,42	3	3	3	3
152	589-814	74LS04	U31,35	2	2	2	2
153	589-816	74LS10	U28	1	1	1	1
154							
155	589-934	74LS221	U23,37,44	3	3	3	3
156							
157							
158							
159	590-086	DG303CJ [1]	U8,22,32,34,36	5	5	5	5
160	590-486	MC14538 [1]	U38,46	2	2	2	2
161	590-448	LM310P	U12,15,16,17,18,21	6	6	6	6
162	590-502	TL072	U47				1
163	590-500	MC10109	U1	1	1	1	1
164	590-506	CD4011BE [1]	U27,39	2	2	2	2
165	590-507	CD4070BE [1]	U40	1	1	1	1
166							
167	590-528	CD4001BE [1]	U26	1	1	1	1
168	590-553	TL710	U13,14	2	2	2	2
169	590-534	F747	U25	1	1	1	1
170							
171	590-543	MC10116	U2,3	2	2	2	2
172	590-561	INTEGRATED CIRCUIT, CA3140E	U5,11	2	2	2	2

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AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467020 SHEET 5	REV N

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04
173	590-572	INTEGRATED CIRCUIT, 74C221 [1]	U29,30,43	3	3	3	3
174	590-601	LF356	U19	1	1	1	1
175	587-163	MC1330	U10	1	1	1	1
176							
177	590-616	INTEGRATED CIRCUIT, 74221	U45	1	1	1	1
178							
179							
180							
181							
182	066-662	RESISTOR, C.F., 200 OHMS, .25W, 5%	R134	1	1	-	-
183							
184	066-665	RESISTOR, C.F., 1K OHMS, .25W, 5%	R51,52,58, 61, 83,84, 97,102, 154,158, 179,184,185,194, 223,257,278	16	16	16	17
185							
186							
187							
188							
189	066-666	2.7K	R80,138,150	3	3	3	3
190							
191	066-667	3K	R163,168,232	3	3	3	3
192	066-668	4.7K	R57,95,254, 256,259	4	4	5	5
193	066-669	8.2K	R76	1	1	1	1
194	066-677	68	R159	1	1	1	1
195	066-673	1.0M	R250,258	2	2	2	2
196	066-676	560K	R74	1	1	1	1
197	066-689	2.2K	R189	1	1	1	1
198							
199	066-711	7.5K	R91,253	2	2	2	2
200	066-712	22K	R188	2	2	1	1
201	066-715	1.2K	R134,166,193	2	2	3	3
202							
203	066-717	47K	R131,226,229,230,231, 270,273,276,281,283	8	8	8	10
204	066-718	5.6K	R87,89,233, 234	4	4	4	4
205	066-720	3.3K	R187	1	1	1	1
206							
207	066-810	10	R174,195, 218	3	3	3	3
208	066-812	100	R9,11,18,47, 48,88,93,95, 100,101,136, 139,148,186	14	14	14	14
209							
210							
211	066-816	390	R112	1	1	1	1
212	066-818	470	R15	1	1	1	1
213	066-819	620	R10,12,13, 28,34-45	16	16	16	16
214							
215	066-824	1.5K	R16,203,208, 238	4	4	4	4
216	066-826	2K	R86,103,118, 202,225	5	5	5	5
217	066-828	RESISTOR, C.F., 4.3K OHMS, .25W, 5%	R98	1	1	1	1

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ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04
218	066-830	RESISTOR, C.F., 10K OHMS, .25W, 5%	R46,90,129,130,140,149,183,227,255	9	9	9	9
219							
220	066-829	6.8K	R275	1	1	1	1
221	066-834	33	R6,50,53	3	3	3	3
222	066-837	130	R176,220,252	3	3	3	3
223							
224	066-838	330	R104	1	1	1	1
225	066-846	30K	R152	1	1	1	1
226	066-847	33K	R251	1	1	1	1
227	066-849	100K	72,108,109,265,266,272,280,282,284	6	6	6	9
228	066-863	3.6K	R17,137	2	2	2	2
229	066-868	120K	R132,279	1	1	1	2
230	066-872	360	R7	1	1	1	1
231							
232	066-873	20K	R119,207,151,153	4	4	4	4
233	066-913	220K	R262	1	1	1	1
234	066-938	47	R22,26,29,30,49,54,55,56,77,94,99,105,111,114,155-157,210,211,240	20	20	20	20
235							
236							
237	066-928	2.4K	R79	1	1	1	1
238							
239	066-974	150K	R277			1	1
240	076-012	330K	R209	1	1	1	1
241	076-038	16	R21,27	2	2	2	2
242	076-042	30	R205	1	1	1	1
243							
244	076-045	RESISTOR, C.F., 75 OHMS, .25W, 5%	R106,216,246	3	3	3	3
245							
246							
247							
248							
249	041-793	RESISTOR, FIXED, COMP, 10 M OHMS, .25W, 5%	R133	1	1	1	1
250							
251							
252							
253							
254							
255	062-624	RESISTOR, M.F., 1.0K OHMS, .125W, 1%	R117,192,214	3	3	3	3
256	062-639	3.01K	R116,213	2	2	2	2
257							
258	062-693	20K	R181,182,191	3	3	3	3
259	062-834	73.2	R180,224	2	2	2	2
260	062-836	75	R8	1	1	1	1
261							
262	062-847	RESISTOR, M.F., 100 OHMS, .125W, 1%	R2,67,73	3	3	3	3

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ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04
263	062-856	RESISTOR, M.F., 124 OHMS, .125W, 1%	R71	1	1	1	1
264	062-861	140	R70	1	1	1	1
265	062-864	150	R4	1	1	1	1
266							
267	062-874	200	R206,237	2	2	2	2
268	062-880	249	R177,178, 221,222	4	4	4	4
269	062-886	316	R196	1	1	1	1
270							
271	062-887	332	R215,245	2	2	2	2
272	062-889	357	R3,110	2	2	2	2
273	062-894	402	R65,68,197	3	3	3	3
274							
275	062-897	422	R1	1	1	1	1
276	062-904	511	R162	1	1	1	1
277	062-913	681	R128	1	1	1	1
278							
279	062-928	1.1K	R96	1	1	1	1
280	062-935	1.65K	R170,172 242,244	4	4	4	4
281	062-944	2.37K	R121,169, 241,249	4	4	4	4
282							
283	062-949	2.67K	R147	1	1	1	1
284	062-952	2.87K	R59,66	2	2	2	2
285	062-958	3.74K	R19,92,199	3	3	3	3
286							
287	062-962	4.02K	R115,120, 171,212,243,247	6	6	6	6
288	062-966	4.75K	R125,165	2	2	2	2
289	062-968	4.99K	R164	1	1	1	1
290							
291	062-972	5.62K	R23,25,173, 175,217,219	6	6	6	6
292	062-983	10K	R31,32,126, 260,261,263,	10	10	10	10
293			264,267,268, 271				
294							
295	062-982	9.09K	R190	1	1	1	1
296							
297							
298	066-060	26.1K	R75	1	1	1	1
299	066-061	13K	R145	1	1	1	1
300							
301	066-174	806	R122,167, 239,248	4	4	4	4
302	066-183	60.4K	R235	1	1	1	1
303	066-193	2.15K	R20	1	1	1	1
304							
305	066-442	10.5K	R141	1	1	1	1
306	066-454	1.91K	R60,62,63,64	4	4	4	4
307	066-511	RESISTOR, M.F., 255 OHMS, .125W, 1%	R69	1	1	1	1

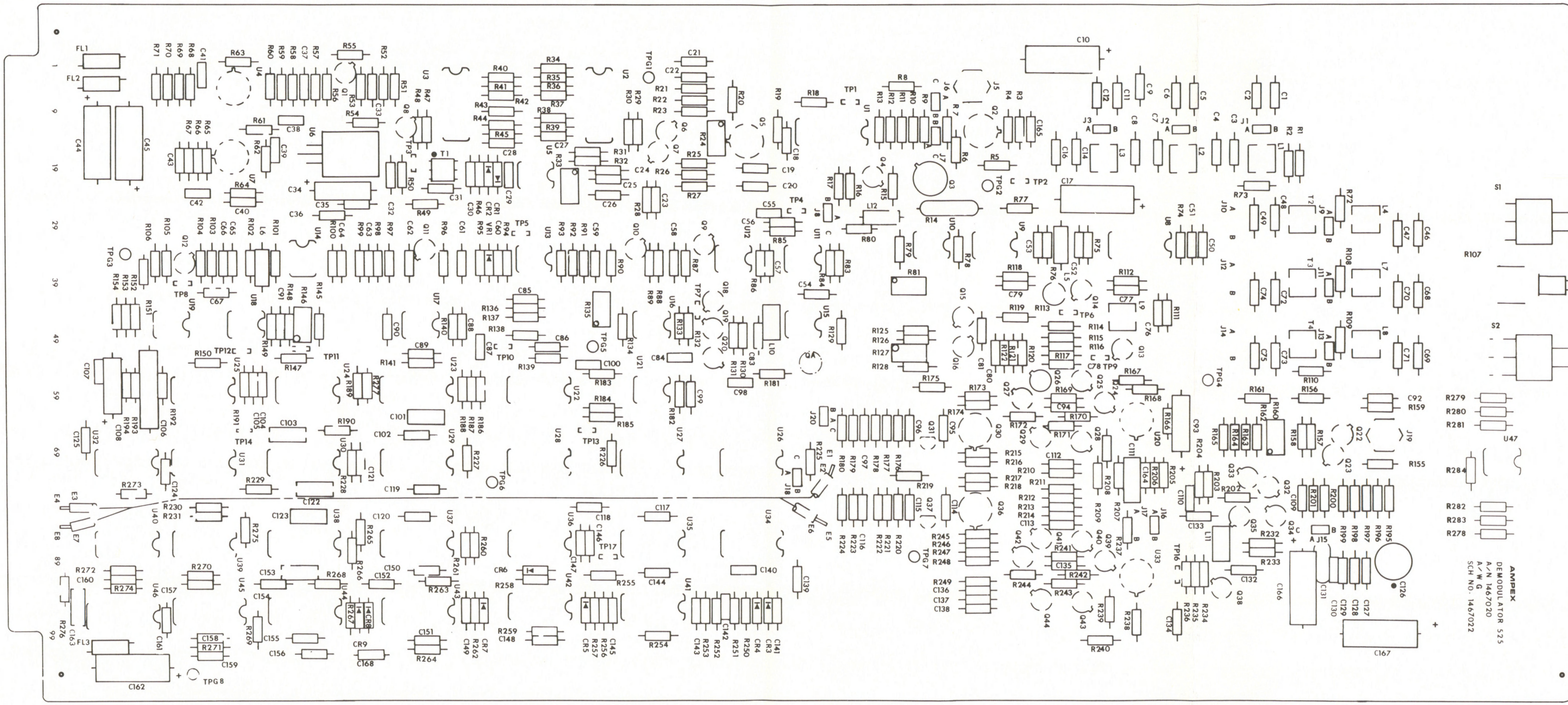
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ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04
308	066-512	PESISTOR, M.F., 4.22K OHMS, .125W, 1%	R78		1		1
309	066-525	34.8K	R269		1		1
310	066-656	30.1K	R204,236	2	2	2	2
311	066-710	19.6K	R198	1	1		1
312	076-356	147K	R228	1	1		1
313	076-157	1.96K 1%	R5,161	2	2	2	2
314	076-359	191K 1%	R274	1	1		1
315	076-931	536 .25%	R200		1		1
316	076-933	RESISTOR, M.F., 806 OHMS, .125W, .25%	R201		1		1
317							
318							
319	048-695	RESISTOR, M.F., 90.9 OHMS, .25W, 1%	R14		1	1	1
320							
321							
322	044-943	RESISTOR, VAR, CERMET, 2K OHMS, .5W, 20%	R113		1	1	1
323							
324							
325							
326	058-459	CARBON, 5K OHMS, .5W, 10%	R107		1	1	1
327	058-540	CERMET, 5K	R127		1	1	1
328	058-564	CERMET, 500	R146		1	1	1
329							
330	058-565	CERMET, 10K	R33,135	2	2	2	2
331	058-573	CERMET, 100	R160		1	1	1
332	058-601	RESISTOR, VAR, CERMET, 1.0K OHMS, .5W, 10%	R24,81	2	2	2	2
333							
334							
335							
336							
337	014-505	TRANSISTOR, 2N3251	Q4,8,13,18, 20,24,25,28,33,35,38,39, 40,43	14	14	14	14
338							
339							
340	014-506	CD446	Q22	1	1	1	1
341	014-581	2N2369A	Q1,9,10,11, 12,14-16,19,26,27,29, 32,34,41,42,44	17	17	17	17
342							
343							
344	014-738	CD558	Q6,7	2	2	2	2
345	014-852	DUAL, MD2369A	Q2,5,30,36	4	4	4	4
346	014-859	2N4208	Q23		1	1	1
347							
348							
349							
350	580-840	MPS-H81	Q31,37	2	2	2	2
351	580-556	TRANSISTOR, 2N3866A	Q3		1	1	1
352							

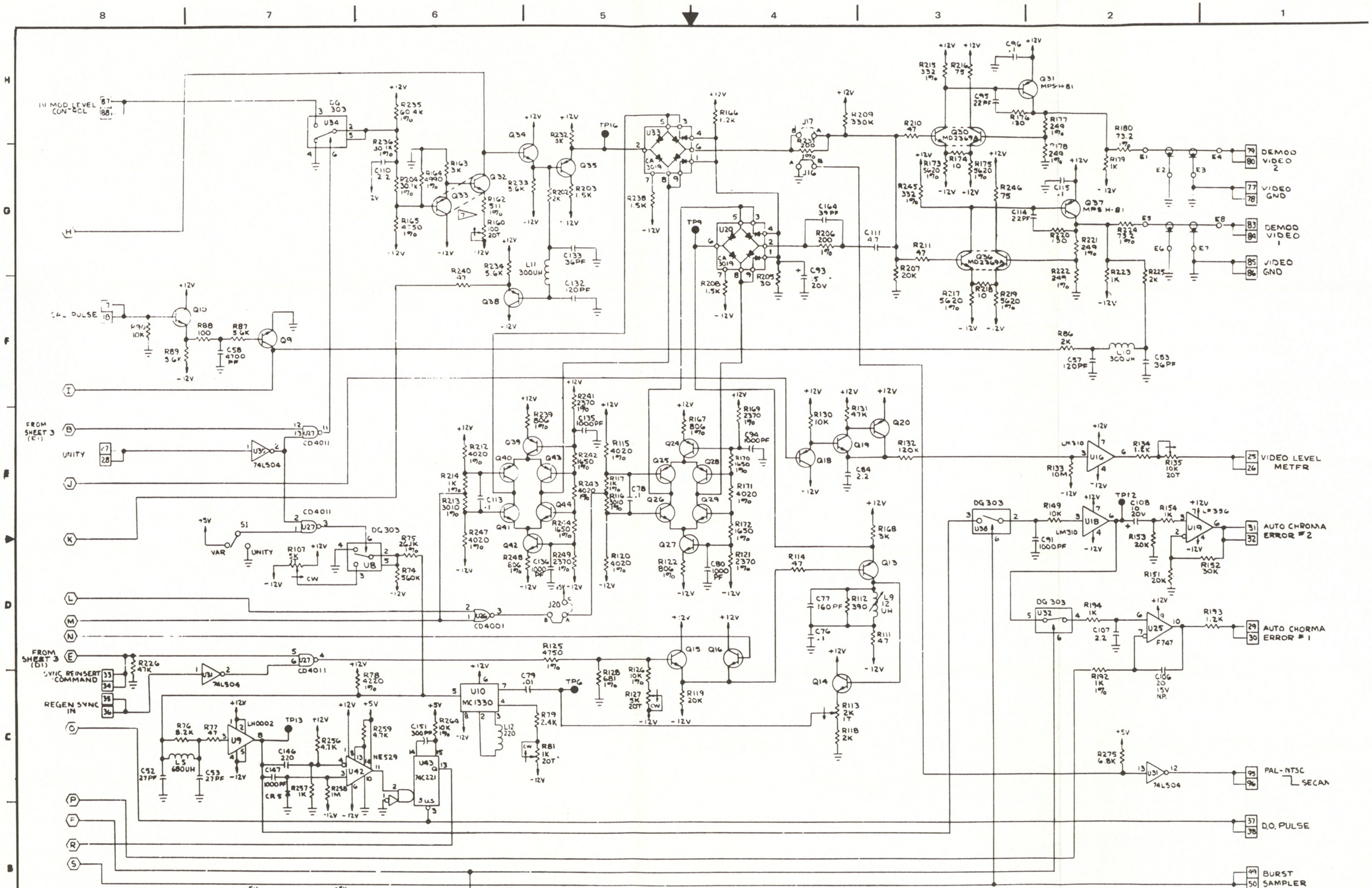
LM-1467020

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04
353	014-613	TRANSISTOR MTG HDW, HEATSINK, TO-5	REF: Q2		1	1	1
354							
355							
356	075-273	RESISTOR PART, MTG PLATE	REF: R107		1	1	1
357	075-274	RESISTOR PART, WIRING BOARD	REF: R107		1	1	1
358							
359	119-279	SWITCH, TOGGLE, DPDT	S2				1
360	067-388	SILICONE, COMPOUND, GREASE, HEAT CONDUCTIVE	REF:Q2	A/R	A/R	A/R	A/R
361	120-967	SWITCH, TOGGLE, SPDT	S1	1	1	1	1
362	570-435	TRANSFORMER, WIDEBAND, T4-1T	T1	1	1	1	1
363	139-037	CONNECTOR, SIGNAL CIRCUIT, RECEPT 1 COAX PIN	J5,19	2	2	2	2
364							
365							
366	140-437	CONNECTOR, SIGNAL CIRCUIT, PLUG, RECT, 2 SOC	J1-3,6, 7,8,9,	13	13	13	13
367			11,13,15, 16,18,20				
368							
369							
370	187-055	TERMINAL, WIREWRAP	J1-AB,J2-AB, J3-AB,	40	40	40	40
371			J6-ABC,J7-ABC,J8-ABC,J9-AB, J10-AB,J11-AB,J12-AB,J13-AB,				
372			J14-AB,J15-ABC,J16-AB,J17-AB, J18-ABC,J20-ABC				
373	187-259	TERMINAL, PC, TEST POINT	TP:-14, 16,17	16	16	16	16
374							
375	230-144	KNOB, POTENTIOMETER	REF: R107	1	1	1	1
376	280-998	TRANSISTOR MTG HDW, MTG PAD, TO-5	REF: Q3	1	1	1	1
377							
378	471-060	SCREW, MACH,PAN HD, XREC DR, 4-40 X .250 LG	REF: U6	1	1	1	1
379							
380							
381	496-004	NUT, HEX, CAPTIVE LOCKWASHER, 4-40	REF: U6	1	1	1	1
382							
383							
384	580-804	TRANSISTOR MTG HDW, CLIP, DUAL	REF: (Q6,7), (22,23), (32,33)	3	3	3	3
385							
386							
387	582-167	TRANSISTOR MTG HDW, INSULATOR, MICA	REF: U6	1	1	-	-
388	582-378	TRANSISTOR MTG. HDWE, INSULATOR, SILICONE RUBBER	REF:U6			1	1
389							
390	616-569	CABLE, COAXIAL, SINGLE CIRCUIT, 75 OHMS		A/R	A/R	A/R	A/R
391							
392							
393							
394		NOTES:					
395		1 ▷ STATIC SENSITIVE, SPECIAL HANDLING REQUIRED PER PER AMPEX STD HE1-1.					
396							
397							

LM-1467020

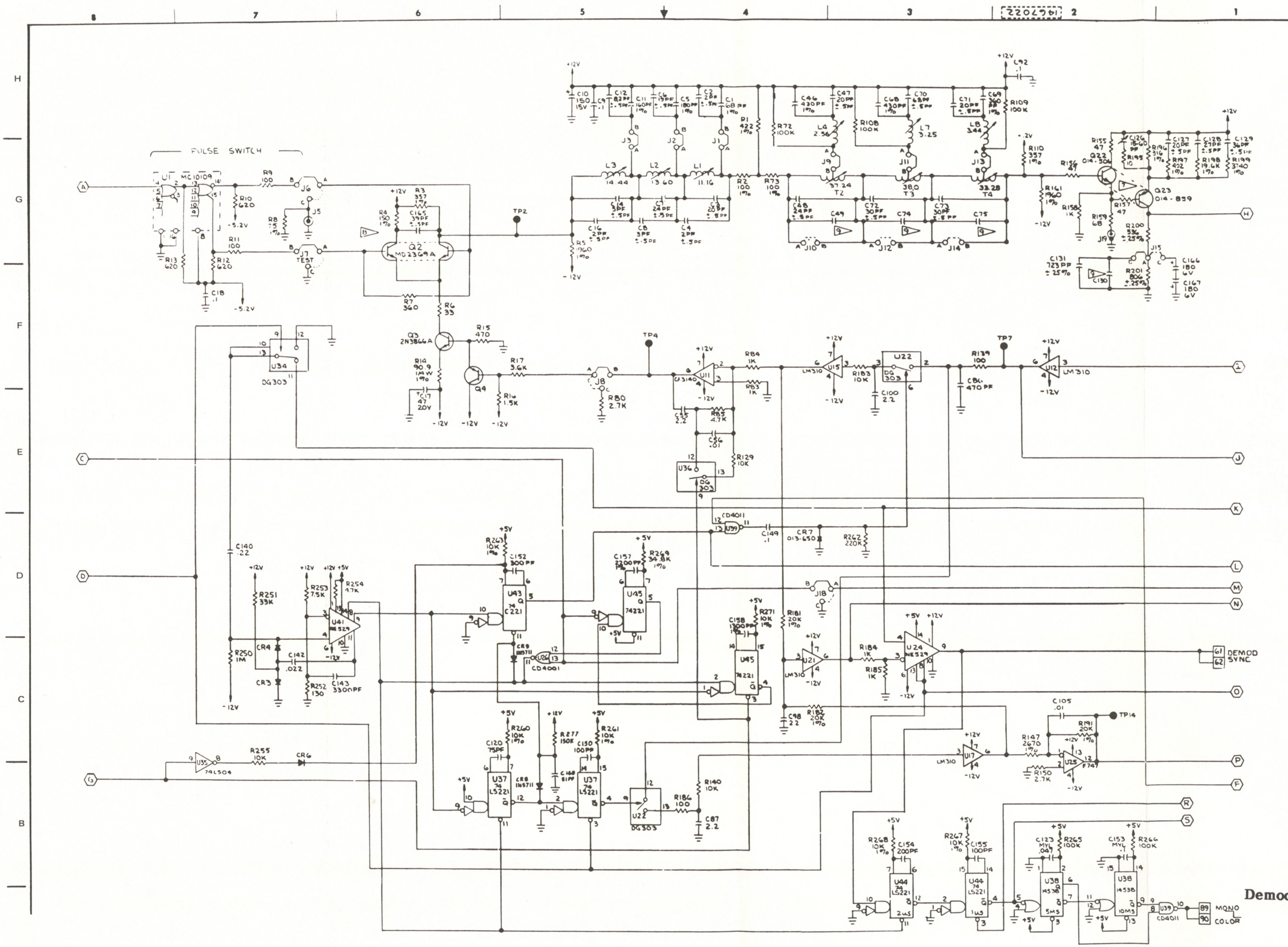


Assembly No. 1467020-04N.
Demodulator PWA, A2, NTSC, PAL-M

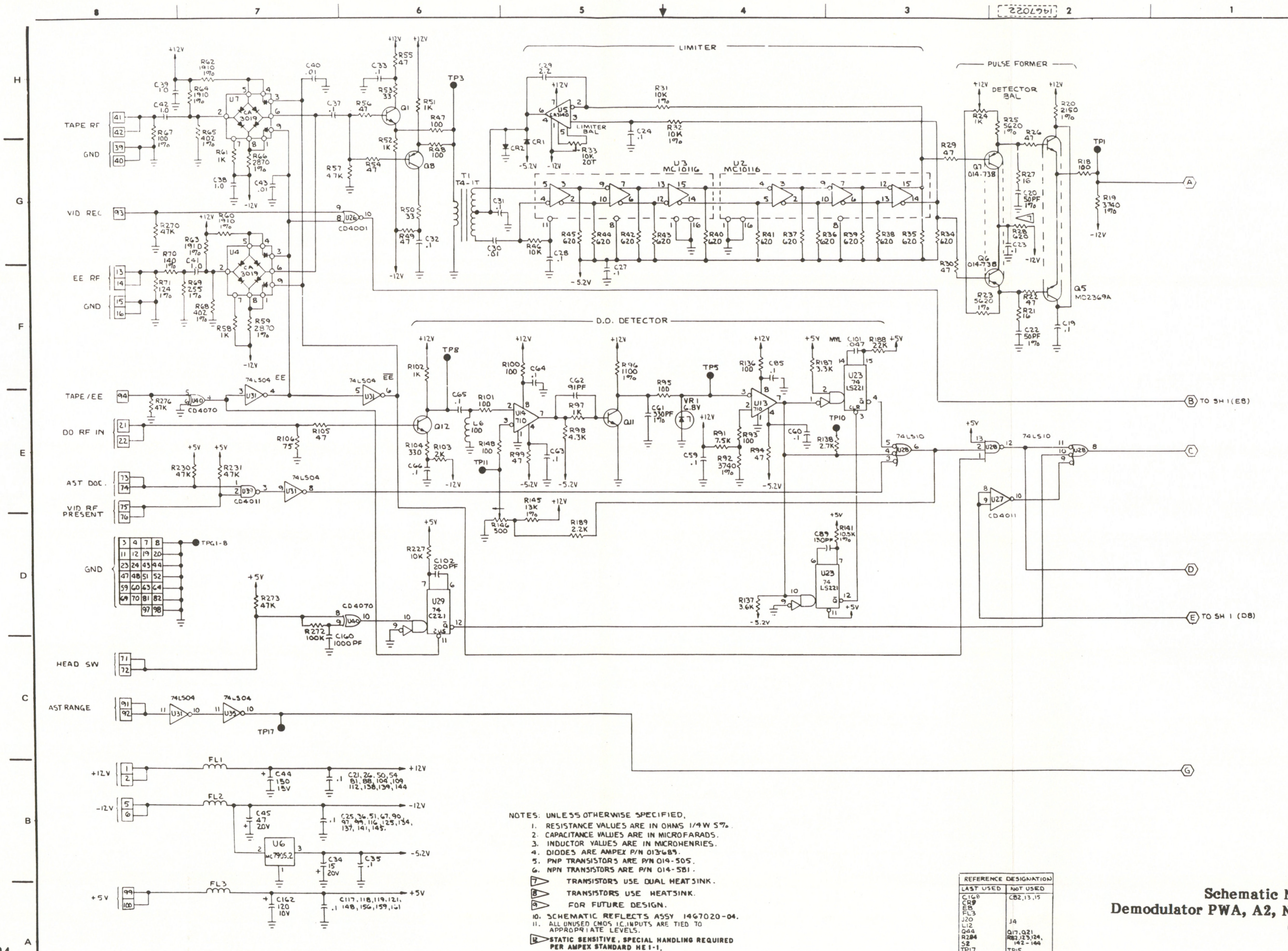


REF DES	U1	U2, 3	U4,7,20,33	U29,30,43	U24,41,42	U25		
AMPEX P/N	590-500	590-543	586-255	590-572	000-146	590-534		
VENDOR P/N	MC10109	MC10116	CA 3019	74C221	NE529	F747		
VOLTAGE	-5.2V (8)	-5.2V (8)	—	+5V (16)	+12V(1)-12V(6)	+12V(9,3)-12V(4)		
GND	1, 16	1, 16	—	8	10	—		
REF DES	U26	U27, 39	U28	U31, 35	U23,37,44	U38,46	U40	U45
AMPEX P/N	590-528	590-506	589-816	589-819	589-934	590-486	590-507	590-616
VENDOR P/N	CD4001	CD4011	74LS10	74LS04	74LS221	MC14538	CD4070	74221
VOLTAGE	+5(14)	+5(14)	+5(14)	+5(14)	+5(16)	+5(16)	+5(14)	+5(16)
GND	7	7	7	7	8	8	7	8
REF DES	U5, 11	U6	U8,22,32,34,36	U9	U10	U12,15-18,21	U13, 14	U19
AMPEX P/N	590-561	001-892	590-086	587-270	587-163	590-498	590-553	590-601
VENDOR P/N	CA 3140	MC 7905.2	DG 303	LH0002	MC1330	LM310	TL710	LF356
VOLTAGE	+12(7)-12(4)	-12(2)	+12(14)-12(8)	+12(1,2)-12(4,5)	+12(6)-12(8)	+12(7)-12(4)	—	+12(7)-12(4)
GND	—	1	7	—	—	—	1	—

Schematic No. 1467022J.
Demodulator PWA, A2, NTSC, PAL-M
(Sheet 1 of 3)



Schematic No. 1467022J.
Demodulator PWA, A2, NTSC, PAL-M
(Sheet 2 of 3)



NOTES: UNLESS OTHERWISE SPECIFIED,

1. RESISTANCE VALUES ARE IN OHMS 1/4W 5%.
2. CAPACITANCE VALUES ARE IN MICROFARADS.
3. INDUCTOR VALUES ARE IN MICROHENRIES.
4. DIODES ARE AMPEX P/N 013689.
5. PNP TRANSISTORS ARE P/N 014-505.
6. NPN TRANSISTORS ARE P/N 014-581.

7▷ TRANSISTORS USE DUAL HEATSINK.

8▷ TRANSISTORS USE HEATSINK.

9▷ FOR FUTURE DESIGN.

10. SCHEMATIC REFLECTS ASSY 1467020-04.
11. ALL UNUSED CMOS I.C. INPUTS ARE TIED TO APPROPRIATE LEVELS.

12▷ **STATIC SENSITIVE, SPECIAL HANDLING REQUIRED PER AMPEX STANDARD HE1-1.**

REFERENCE DESIGNATION	
LAST USED	NOT USED
C168	C82,13,15
CR9	
E8	
FL3	
J20	J4
L12	
Q44	Q17,Q21
R284	R82,123,124, 142-144
S2	
TP17	TP15
TPG8	
U47	
VR1	
T4	

Schematic No. 1467022J.
Demodulator PWA, A2, NTSC, PAL-M
(Sheet 3 of 3)

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05
1								
2								
3	1467025	SCHEMATIC		E	F	G	H	J
4								
5	1400004-01	EJECTOR, PWB		1	1	1	1	1
6	1467008-AD	LABEL		1	1	1	1	1
7	1467009-01	SHIELD		1	1	1	1	1
8	250-155	BUMPER, PAD, SYNTHETIC RUBBER		3	3	3	3	3
9	283-105	SPACER, PLAIN, .140 ID X .250 OD X .125 LG		1	1	1	1	1
10	471-063	SCREW, MACH., PAN HD., XREC DR, 4-40 X .438 LG		1	1	1	1	1
11	474-500	SCREW, MACH., PAN HD., XREC DR, 4-40 X .312 LG		7	7	7	7	7
12	502-002	WASHER, LOCK, HELICAL SPRING, #4		1	1	1	1	1
13	506-011	WASHER, BOWED		1	1	1	1	1
14								
15								
16								
17	1374388-AJ	INDUCTOR, VAR, 5.6uH	L4,7	2	2	2	2	2
18	1374388-AK	6.8uH	L8	1	1	1	1	1
19								
20								
21	1374388-AM	10uH	L1,2,9	3	3	3	3	3
22	1374388-AN	INDUCTOR, VAR, 12uH	L3	1	1	1	1	1
23								
24								
25								
26	1379491-AE	TRANSFORMER, VAR, 35.2uH	T3	1	1	1	1	1
27	1379491-AF	TRANSFORMER, VAR, 76.5uH	T2	1	1	1	1	1
28	1379491-AH	TRANSFORMER, VAR, 17.0uH	T4	1	1	1	1	1
29								
30	064-307	CAPACITOR, CER, MONO, .22uF, 100V, 20%	C140	1	1	1	1	1
31	064-314	CAPACITOR, CER, MONO, 1.0uF, 50V, 20%	C38,39,41,42	4	4	4	4	4
32	064-316	2.2uF, 50V, 20%	C29,55,84,87,98,100,107,110	8	8	8	8	8
33	064-319	4.7uF, 50V, 20%	C111	1	1	1	1	1
34	064-651	220pF, 100V, 5%	C146	1	1	1	1	1
35								
36	064-652	CAPACITOR, CER, MONO, .01uF, 50V, 20%	C30,40,43,56,79,105	6	6	6	6	6
37								

LM-1467023

AMPEX | Ampex Corporation, REDWOOD CITY, CALIFORNIA	CODE IDENT NO. 92739	LIST OF MATERIALS	LM-1467023 SHEET 2	REV M

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05
38	064-653	CAPACITOR, CER, MONO, 0.1uF, 50V, 20%	C9,18,19,21, 23,24,25,26,	61	61	61	61	61
39		27,28,31,32,33,35,36,37,50,51,54,59, 60,63-67,76,78,81,82,85,88,90,92,96,						
40		97,99,104,109,112,113,115-119,121,124, 125,134,137-139,141,144,145,148,149,156,						
41		159,161						
42								
43								
44								
45								
46	064-658	CAPACITOR, CER, MONO, 5pF, 50V, ±.5pF	C8,14,70	3	3	3	3	3
47	064-666	75pF, 100V, 5%	C120	1	1	1	1	1
48	064-668	300pF, 100V, 5%	C151,152	2	2	2	2	2
49	064-671	22pF, 100V, 5%	C95,114	2	2	2	2	2
50	064-674	330pF, 50V, 1%	C61	1	1	1	1	1
51								
52	064-676	39pF, 50V, ±.5pF	C165	1	1	1	1	1
53	064-678	50pF, 50V, 1%	C20,22,72	3	3	3	3	3
54	064-681	750pF, 50V, 1%	C46	1	1	1	1	1
55	064-683	160pF, 50V, 1%	C11,69	2	2	2	2	2
56	064-686	150pF, 50V, 1%	C5	1	1	1	1	1
57	064-690	1300pF, 50V, 1%	C158	1	1	1	1	1
58	064-694	200pF, 100V, 5%	C102,154	2	2	2	2	2
59								
60	064-699	390pF, 50V, 1%	C68	1	1	1	1	1
61	064-704	1000pF, 50V, 5%	C80,91,94,135, 136,147,160	7	7	7	7	7
62	064-709	120pF, 100V, 5%	C57,132	2	2	2	2	2
63	064-712	27pF, 100V, 5%	C52,53	2	2	2	2	2
64	064-713	36pF, 100V, 5%	C83,133	2	2	2	2	2
65	064-714	51pF, 100V, 5%	C168				1	1
66	064-716	91pF, 100V, 5%	C62	1	1	1	1	1
67								
68	064-721	130pF, 100V, 5%	C77,89	2	2	2	2	2
69								
70	064-727	68pF, 50V, 1%	C164	1	1	1	1	1
71	064-729	15pF, 50V, ±.5pF	C71	1	1	1	1	1
72	064-730	30pF, 50V, ±.5pF	C129	-		-	-	-
73	064-730	30pF, 50V, ±.5pF	C128,129			2	2	2
74								
75	064-740	62pF, 50V, %	C73	1	1	1	1	1
76								
77								
78	064-762	100pF, 100V, 5%	C150,155	2	2	2	2	2
79								
80	064-764	470pF, 50V, 5%	C86	1	1	1	1	1
81	064-767	4700pF, 50V, 5%	C58	1	1	1	1	1
82	064-768	CAPACITOR, CER, MONO, 3300pF, 50V, 5%	C143	1	1	1	1	1

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AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467023 SHEET 3	REV M

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05
83	064-775	CAPACITOR, CER, MONO, 20pF, 50V, ±.5pF	C7,127		-	2	2	2
84	064-775	CAPACITOR, CER, MONO, 20pF, 50V, ±.5pF	C7,127,128	3	3	-	-	-
85	064-776	18pF, 50V, ±.5pF	C3		1	1	1	1
86	064-780	43pF, 50V, ±.5pF	C47		1	1	1	1
87	064-788	36pF, 50V, ±.5pF	C129		-	-	-	-
88	064-785	47pF, 50V, ±.5pF	C1,48	2	2	2	2	2
89	064-825	CAPACITOR, CER, MONO, 2200pF, 50V, 1%	C157			1	1	1
90								
91								
92								
93								
94	056-837	CAPACITOR, MICA, 357pF, 500V, .25%	C131	1	1	1	1	1
95								
96	069-183	CAPACITOR, POLYESTER, 0.1uF, 50V, 1%	C122,163	2	2	2	2	2
97								
98	069-092	CAPACITOR, POLYESTER, .047uF, 50V, 5%	C101,123	2	2	2	2	2
99	069-097	CAPACITOR, POLYESTER, .022uF, 50V, 5%	C142	1	1	1	1	1
100	069-113	CAPACITOR, POLYESTER, 0.1uF, 50V, 5%	C103,153	2	2	2	2	2
101								
102	037-507	CAPACITOR, TANT., 150uF, 15V, 10%	C10,44	-	2	2	2	2
103	037-746	CAPACITOR, TANT., 47uF, 20V, 10%	C17,45	-	2	2	2	2
104	037-109	CAPACITOR, TANT, 10uF, 20V, 10%	C108	1	1	1	1	1
105	037-186	120uF, 10V	C162	1	1	1	1	1
106	037-746	47uF, 20V	C10,17,44,45	4	-	-	-	-
107	037-246	180uF, 6V	C166,167	2	2	2	2	2
108	037-985	CAPACITOR, TANT, 15uF, 20V, 10%	C34,93	2	2	2	2	2
109	067-013	CAPACITOR, TANT, 20uF, 15V, 20%, N.P.	C106	1	1	1	1	1
110								
111								
112	038-248	CAPACITOR, VARIABLE, 15-60pF, 100V	C126	1	1	1	1	1
113								
114								
115								
116								
117	013-650	DIODE, GERMANIUM, CD498	CR7	1	1	1	1	1
118								
119	013-689	DIODE, SWITCHING, CD6016	CR1,2,3,4,5,6	6	6	6	6	6
120								
121	013-224	DIODE, ZENER, 1N754A, 6.8V	VR1	1	1	1	1	1
122								
123	013-962	DIODE, HOT CARRIER, 1N5711	CR8,9				2	2
124								
125								
126	051-770	FERRITE-CHOKE	FL1-3	3	3	3	3	3
127								

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AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467023 SHEET 4	REV M

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05
128								
129								
130								
131	540-003	INDUCTOR, FIXED, 220uH, 5%	L12	1	1	1	1	1
132	540-006	INDUCTOR, FIXED, 100uH, 5%	L6	1	1	1	1	1
133	540-008	INDUCTOR, FIXED, 680uH, 5%	L5	1	1	1	1	1
134								
135								
136								
137	068-064	INDUCTOR, FIXED, 300uH, 5%	L10,11	2	2	-	-	-
138	068-327	INDUCTOR, FIXED, 300uH, 5%	L10,11			2	2	2
139								
140								
141								
142	586-255	INTEGRATED CIRCUIT, CA3019	U4,7,20,33	4	4	4	4	4
143								
144								
145								
146	587-270	LH0002CN	U9	1	1	1	1	1
147	001-892	MC7905.2CT	U6	1	1	1	1	1
148								
149	589-009	DG181BP △1	U47	1	1	1	1	1
150								
151	000-146	NE529	U24,41,42	3	3	3	3	3
152	589-814	74LS04	U31,35	2	2	2	2	2
153	589-816	74LS10	U28	1	1	1	1	1
154								
155	589-934	74LS221	U23,37,44	3	3	3	3	3
156								
157								
158								
159	590-086	DG303CJ △1	U8,22,32,34,36	5	5	5	5	5
160	590-486	MC14538 △1	U38,46	2	2	2	2	2
161	590-448	LM310P	U12,15,16,17,18,21	6	6	6	6	6
162	590-502	TL072	U48					1
163	590-500	MC10109	U1	1		1	1	1
164	590-506	CD4011BE △1	U27,39	2	2	2	2	2
165	590-507	CD4070BE △1	U40	1		1	1	1
166								
167	590-528	CD4001BE △1	U26	1		1	1	1
168	590-553	TL710	U13,14	2	2	2	2	2
169	590-534	F747	U25	1		1	1	1
170								
171	590-543	MC10116	U2,3	2	2	2	2	2
172	590-561	INTEGRATED CIRCUIT, CA3140E	U5,11	2	1	2	2	2

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ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05
173	590-572	INTEGRATED CIRCUIT, 74C221 (1)	U29,30,43	3	3	3	3	3
174	590-601	LF356	U19	1	1	1	1	1
175	587-163	MC1330	U10	1	1	1	1	1
176								
177	590-616	INTEGRATED CIRCUIT, 74221	U45	1	1	1	1	1
178								
179								
180								
181								
182	066-662	RESISTOR, C.F., 200 OHMS, .25W, 5%	R134	1	1	1	-	-
183								
184	066-665	1K	R51,52,58,61, 80,83,84,97,	17	17	17	17	18
185			102, 154,158, 179, 184,185,194,223,257,280					
186								
187								
188								
189	066-666	2.7K	R138,150,275	3	3	3	3	3
190								
191	066-667	3K	R163,168,232	3	3	3	3	3
192	066-668	4.7K	R57,85,254, 256,259	4	4	4	5	5
193	066-669	8.2K	R76	1	1	1	1	1
194	066-677	68	R159	1	1	1	1	1
195	066-673	1.0M	R250,258	2	2	2	2	2
196	066-676	560K	R74	1	1	1	1	1
197	066-689	2.2K	R189	1	1	1	1	1
198								
199	066-711	7.5K	R91,253	2	2	2	2	2
200	066-712	22K	R188	2	2	2	1	1
201	066-715	1.2K	R134,166,193	2	2	2	3	3
202								
203	066-717	47K	R131,226,229,230, 231,270,273,278,283,285	8	8	8	8	10
204	066-718	5.6K	R87,89,233, 234	4	4	4	4	4
205	066-720	3.3K	R124,187	2	2	2	2	2
206	066-810	10	R174,195,199 218	-	-	4	4	4
207	066-810	10	R174,195, 218	3	-	-	-	-
208	066-812	100	R9,11,18,47, 48,88,93,95,	14	14	14	14	14
209			100,101,136, 139,148,186					
210								
211	066-816	390	R112	1	1	1		1
212	066-818	470	R15	1	1	1		1
213	066-819	620	R10,12,13,28, 34-45	16	16	16	16	16
214								
215	066-824	1.5K	R16,203,208, 238	4	4	4	4	4
216	066-826	2K	R86,103,118, 123,202,225	6	6	6	6	6
217	066-828	RESISTOR, C.F., 4.3K OHMS, .25W, 5%	R98	1	1	1	1	1

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AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467023 SHEET 6	REV M

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05
218	066-830	RESISTOR, C.F., 10K OHMS, .25W, 5%	R46,90,129,130, 140,149,183,	9	9	9	9	9
219			227,255					
220								
221	066-834	33	R6,50,53	3	3	3	3	3
222	066-837	130	R176,220,252	3	3	3	3	3
223								
224	066-838	330	R104	1	1	1	1	1
225	066-846	30K	R152	1	1	1	1	1
226	066-847	33K	R251	1	1	1	1	1
227	066-849	100K	R72,108,109,265,266, 272,282,284,286	6	6	6	6	9
228	066-863	3.6K	R17,137	2	2	2	2	2
229	066-868	120K	R132,281	1	1	1	1	2
230	066-872	360	R7	1	1	1	1	1
231								
232	066-873	20K	R119,207, 151,153	4	4	4	4	4
233	066-913	220K	R262	1	1	1	1	1
234	066-938	47	R22,26,29,30, 49,54,55,56,	20	20	20	20	20
235			77,94,99,105,111,114, 155-157,210,211,240					
236								
237	066-928	2.4K	R79	1	1	1	1	1
238								
239	066-974	150K	R279				1	1
240	076-012	330K	R209	1	1	1	1	1
241	076-038	16	R21,27	2	2	2	2	2
242	076-042	30	R205	1	1	1	1	1
243								
244	076-045	RESISTOR, C.F., 75 OHMS, .25W, 5%	R106,216,246	3	3	3	3	3
245								
246								
247								
248								
249	041-793	RESISTOR, FIXED, COMP, 10 M OHMS, .25W, 5%	R133	1	1	1	1	1
250								
251								
252								
253								
254								
255	062-624	RESISTOR, M.F., 1.0K OHMS, .125W, 1%	R117,192,214	3	3	3	3	3
256	062-639	3.01K	R116,213	2	2	2	2	2
257								
258	062-693	20K	R181,182,191	3	3	3	3	3
259	062-834	73.2	R180,224	2	2	2	2	2
260	062-836	75	R8	1	1	1	1	1
261								
262	062-847	RESISTOR, M.F., 100 OHMS, .125W, 1%	R2,67,73	3	3	3	3	3

LM-1467023

AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467023 SHEET 7	REV M

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05					
263	062-856	RESISTOR, M.F., 124 OHMS, .125W, 1%	R71	1	1	1	1	1					
264	062-861	140	R70	1	1	1	1	1					
265	062-864	150	R4	1	1	1	1	1					
266													
267	062-874	200	R206,237,276, 277	4	4	4	4	4					
268	062-880	249	R177,178,221, 222	4	4	4	4	4					
269	062-886	316	R196	1	1	1	1	1					
270													
271	062-887	332	R215,245	2	2	2	2	2					
272	062-889	357	R3,110	2	2	2	2	2					
273	062-894	402	R65,68,197	3	3	3	3	3					
274													
275	062-897	422	R1	1	1	1	1	1					
276	062-904	511	R162	1	1	1	1	1					
277	062-913	681	R128	1	1	1	1	1					
278													
279	062-928	1.1K	R96	1	1	1	1	1					
280	062-935	1.65K	R170,172,242, 244	4	4	4	4	4					
281	062-944	2.37K	R121,169,241, 243	4	4	4	4	4					
282													
283	062-949	2.67K	R147	1	1	1	1	1					
284	062-952	2.87K	R59,66	2	2	2	2	2					
285	062-958	3.74K	R19,92,199	3	-	-	-	-					
286	062-958	3.74K	R19,92	-	2	2	2	2					
287	062-962	4.02K	R115,120,171, 212,243,247	6	6	6	6	6					
288	062-966	4.75K	R125,165	2	2	2	2	2					
289	062-968	4.99K	R164	1	1	1	1	1					
290													
291	062-972	5.62K	R23,25,173, 175,217,219	6	6	6	6	6					
292	062-983	10K	R31,32,126,190, 198,260,261,263, 264,267,268, 271	12	12	12	12	12					
293													
294													
295													
296													
297													
298	066-060	26.1K	R75	1	1	1	1	1					
299	066-061	13K	R145	1	1	1	1	1					
300													
301	066-174	806	R122,167,239, 248	4	4	4	4	4					
302	066-183	60.4K	R235	1	1	1	1	1					
303	066-193	2.15K	R20	1	1	1	1	1					
304													
305	066-442	10.5K	R141	1	1	1	1	1					
306	066-454	1.91K	R60,62,63,64	4	4	4	4	4					
307	066-511	RESISTOR, M.F., 255 OHMS, .125W, 1%	R69	1	1	1	1	1					

LM-1467023

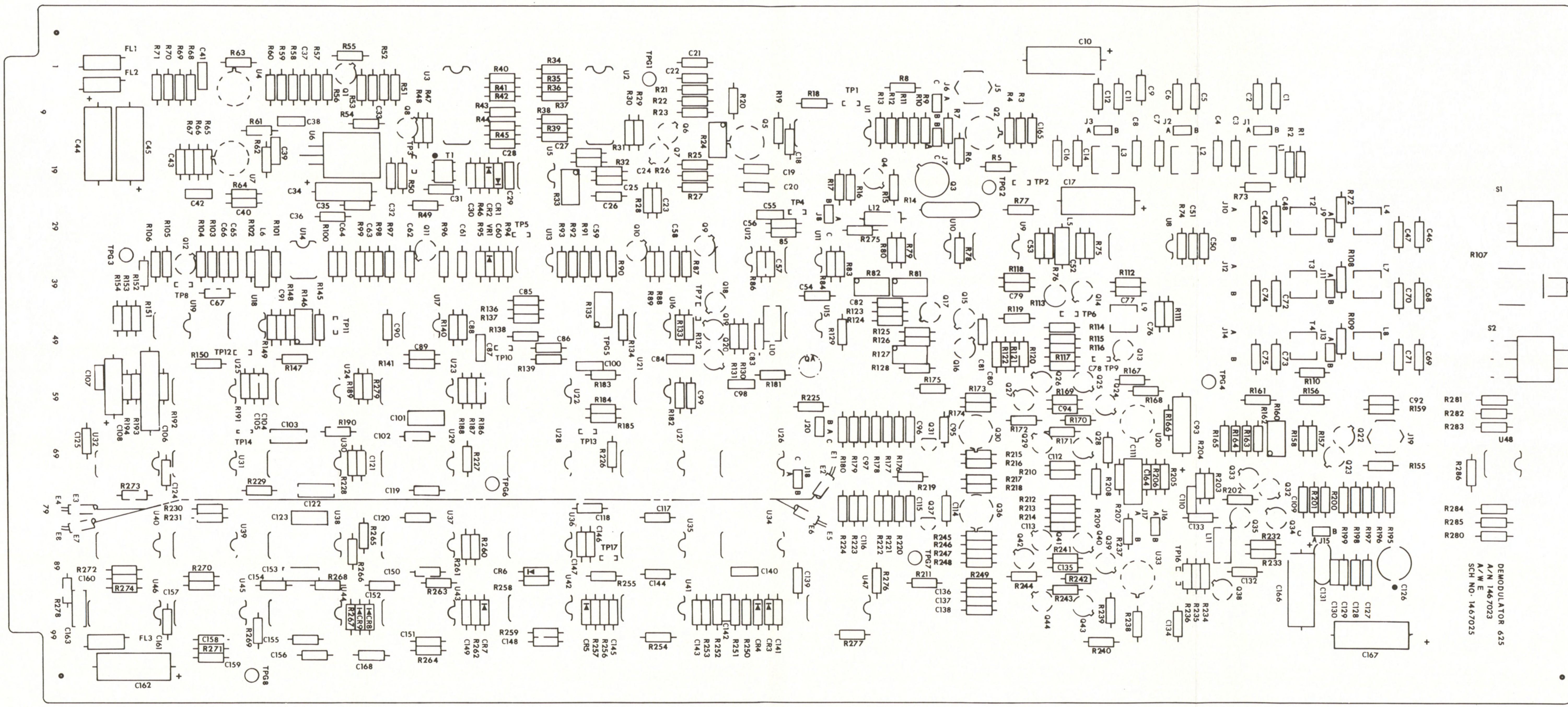
ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05
308	066-512	RESISTOR, M.F., 4.22K OHMS, .125W, 1%	R78	1	1	1	1	1
309	066-525	34.8K	R269	1	1	1	1	1
310	066-656	30.1K	R204,236	2	2	2	2	2
311								
312	076-194	174K	R228	1	1	1	1	1
313	076-157	1.96K 1%	R5,161	2	2	2	2	2
314	076-363	232K 1%	R274	1	1	1	1	1
315	079-250	681 .25%	R200	1	1	1	1	1
316	079-251	RESISTOR, M.F., 1629 OHMS, .125W, .25%	R201	1	1	1	1	1
317								
318								
319	048-695	RESISTOR, M.F., 90.9 OHMS, .25W, 1%	R14	1	1	1	1	1
320								
321								
322	044-943	RESISTOR, VAR, CERMET, 2K OHMS, .5W, 20%	R113	1	1	1	1	1
323								
324								
325								
326	058-459	RESISTOR, VAR, CARBON, 5K OHMS, .5W, 10%	R107	1	1	1	1	1
327	058-540	CERMET, 5K	R127	1	1	1	1	1
328	058-564	CERMET, 500	R146	1	1	1	1	1
329								
330	058-565	CERMET, 10K	R33,82,135	3	3	3	3	3
331	058-573	CERMET, 100	R160	1	1	1	1	1
332	058-601	RESISTOR, VAR, CERMET, 1.0K OHMS, .5W, 10%	R24,81	2	2	2	2	2
333								
334								
335								
336								
337	014-505	TRANSISTOR, 2N3251	Q4,8,13,18,20, 24,25,28,33,35,38,39,40, 43	14	14	14	14	14
338								
339								
340	014-506	CD446	Q22	1		1	1	1
341	014-581	2N2369A	Q1,9,10,11,12, 14-17,19,26,27,29,32,34, 41,42,44	18	18	18	18	18
342								
343								
344	014-738	CD558	Q6,7	2	2	2	2	2
345	014-852	DUAL, MD2369A	Q2,5,30,36	4	4	4	4	4
346	014-859	2N4208	Q23	1	1	1	1	1
347								
348								
349								
350	580-840	MPS-H81	Q31,37	2	2	2	2	2
351	580-956	TRANSISTOR, 2N3866A	Q3	1	1	1	1	1
352								

LM-1467023

AMPEX Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467023 SHEET 9	REV M

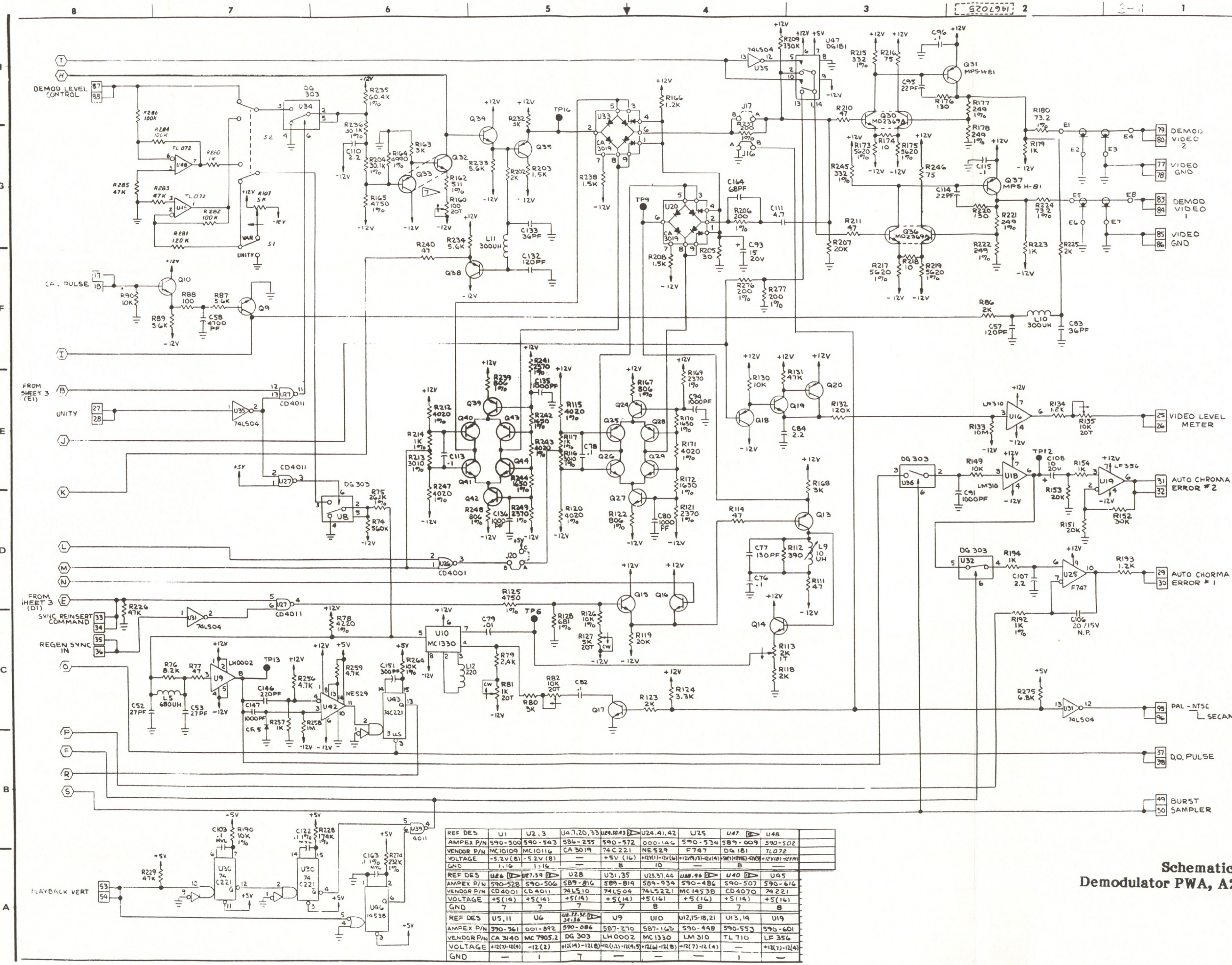
ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05
353	014-613	TRANSISTOR MTG HDW, HEATSINK, TO-5	REF: Q2	1	1	1		1
354								
355								
356	075-273	RESISTOR PART, MTG PLATE	REF: R107	1	1	1	1	1
357	075-274	RESISTOR PART, WIRING BOARD	REF: R107	1	1	1	1	1
358								
359	119-279	SWITCH, TOGGLE, DPDT	S2					1
360	087-388	SILICONE, COMPOUND, GREASE, HEAT CONDUCTIVE	REF: Q2	A/R	A/R	A/R	A/R	A/R
361	120-967	SWITCH, TOGGLE, SPDT	S1	1	1	1	1	1
362	570-435	TRANSFORMER, WIDEBAND, T4-1T	T1	1	1	1	1	1
363	139-037	CONNECTOR, SIGNAL CIRCUIT, RECEPT 1 COAX PIN	J5,19	2	2	2	2	2
364								
365								
366	140-437	CONNECTOR, SIGNAL CIRCUIT, PLUG, RECT, 2 SOC	J1-3,6,7, 8,9,11,13,	13	13	13	13	13
367			15,16,18, 20					
368								
369								
370	187-055	TERMINAL, WIREWRAP	J1-AB, J2-AB, J3-AB,	40	40	40	40	40
371		J6-ABC, J7-ABC, J8-ABC, J9-AB, J10-AB, J11-AB, J12-						
372		AB, J13-AB, J14-AB, J15-ABC, J16- AB, J17-AB, J18-ABC, J20-ABC						
373	187-259	TERMINAL, PC, TEST POINT	TP1-14,16,17	16	16	16	16	16
374								
375	230-144	KNOB, POTENTIOMETER	REF: R107			1	1	1
376	280-998	TRANSISTOR MTG HDW, MTG PAD, TO-5	REF: Q3			1	1	1
377								
378	471-060	SCREW, MACH, PAN HD, XREC DR, 4-40 X .250 LG	REF: U6			1	1	1
379								
380								
381	496-004	NUT, HEX, CAPTIVE LOCKWASHER, 4-40	REF: U6			1	1	1
382								
383								
384	580-804	TRANSISTOR MTG HDW, CLIP, DUAL	REF: (Q6,7), (22,23), (32,33)	3	3	3	3	3
385								
386								
387	582-167	TRANSISTOR MTG HDW, INSULATOR, MICA	REF: U6			1	-	-
388	582-378	TRANSISTOR MTG. HDWE, INSULATOR, SILICONE RUBBER	REF: U6				1	1
389								
390	616-569	CABLE, COAXIAL, SINGAL CIRCUIT, 75 OHMS		A/R	A/R	A/R	A/R	A/R
391								
392								
393								
394		NOTES:						
395		1 ▷ STATIC SENSITIVE, SPECIAL HANDLING REQUIRED PER AMPEX STD HE1-1.						
396								
397								

LM-1467023



Assembly No. 1467023-05M.
Demodulator PWA, A2, PAL/SECAM

10-89/10-90

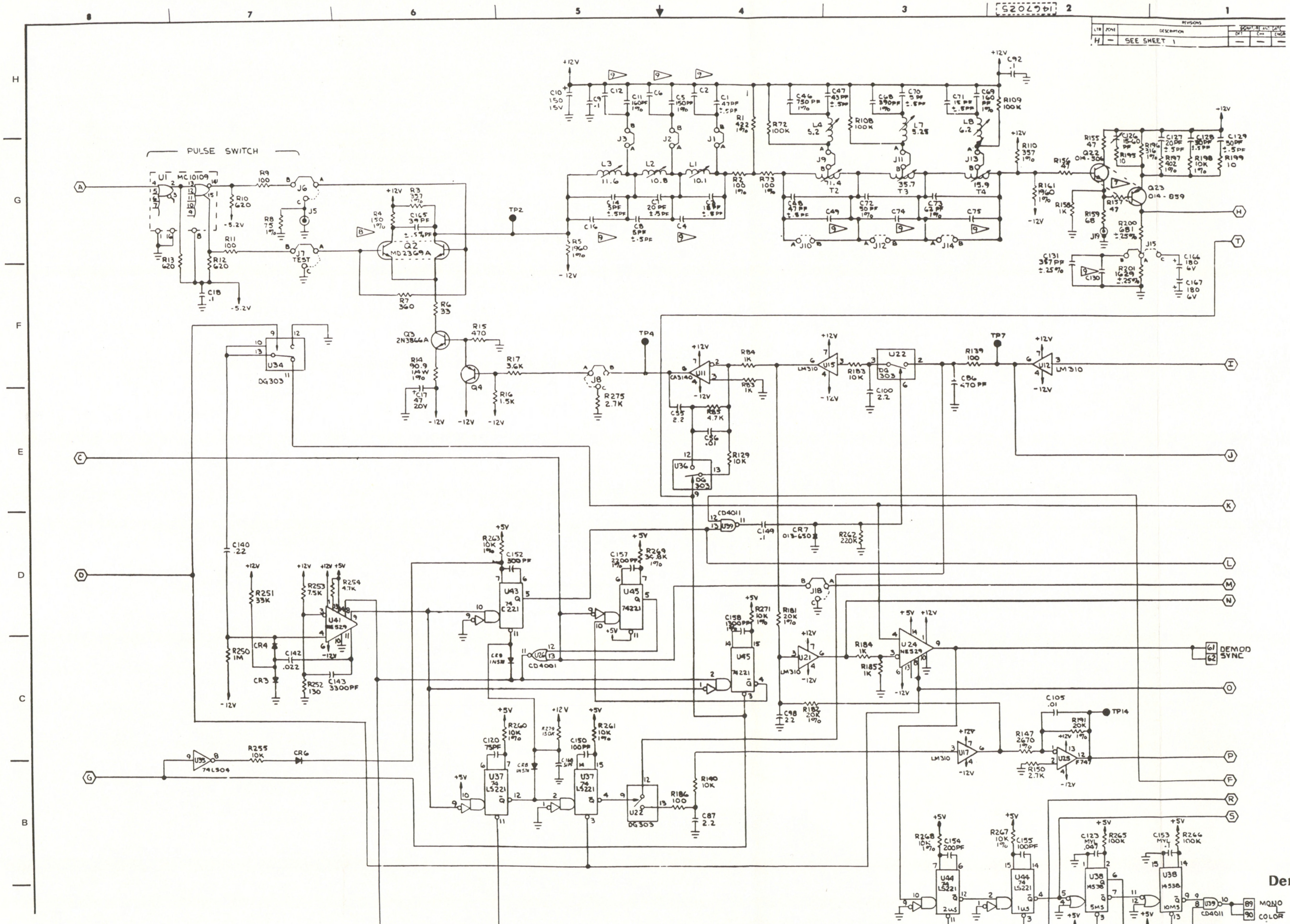


REF DES	U1	U2,3	U4,7,20,33	U29,30,43	U24,41,42	U25	U47	U48
AMPEX P/N	590-500	590-543	586-255	590-572	000-146	590-534	589-009	590-502
VENDOR P/N	MC10109	MC10116	CA3019	74C221	NE529	F747	DG181	TL072
VOLTAGE	-5.2V(8)	-5.2V(8)	—	+5V(16)	+12V(1)-12V(6)	+12V(9,13)-12V(4)	+5V(7)+12V(6)-12V(9)	+12V(8)-12V(4)
GND	1,16	1,16	—	8	10	—	8	—

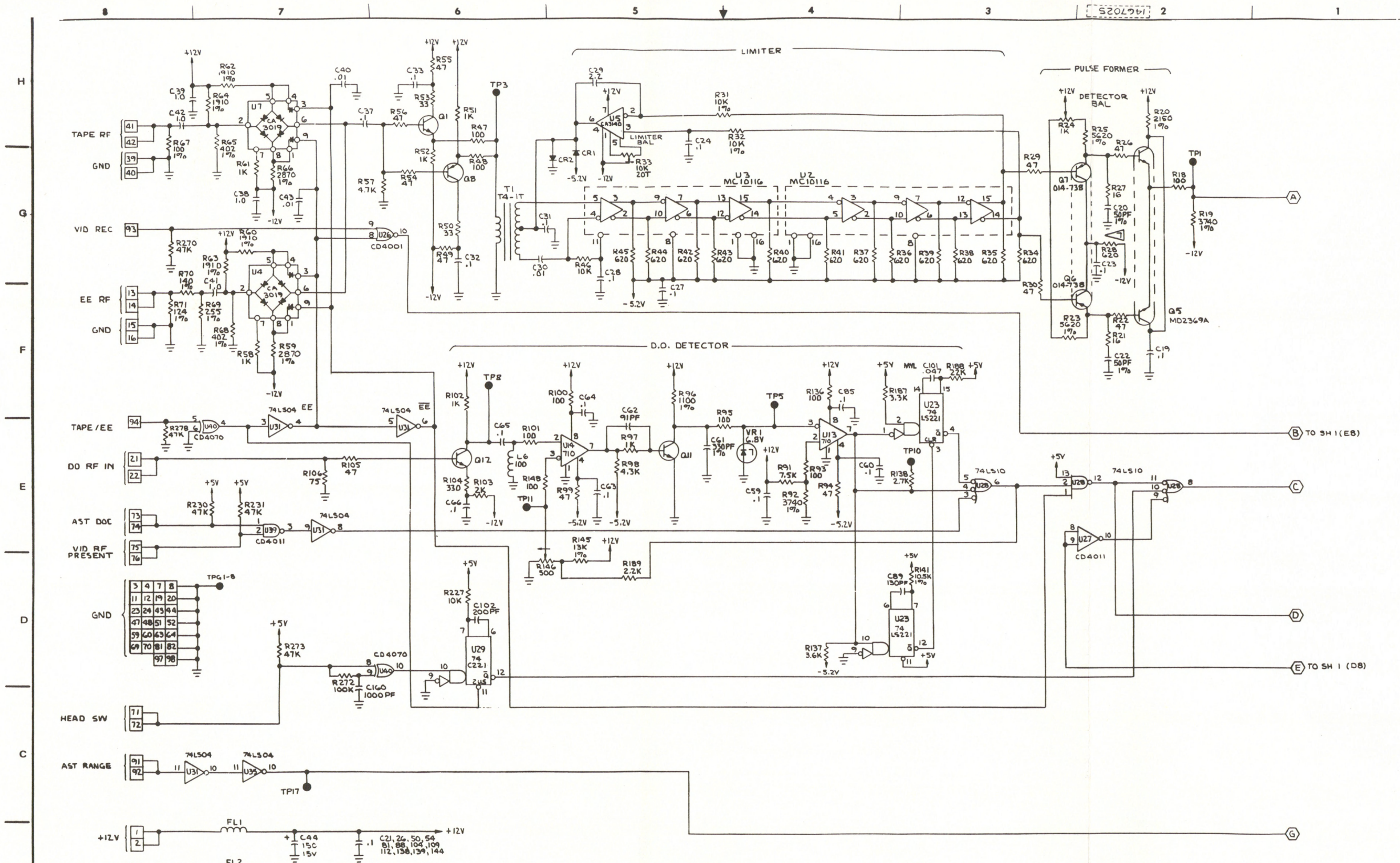
REF DES	U26	U27,39	U28	U31,35	U23,37,44	U38,46	U40	U45
AMPEX P/N	590-528	590-506	589-816	589-819	589-934	590-486	590-507	590-616
VENDOR P/N	CD4001	CD4011	74LS10	74LS04	74LS221	MC14538	CD4070	74221
VOLTAGE	+5(14)	+5(14)	+5(14)	+5(14)	+5(16)	+5(16)	+5(14)	+5(16)
GND	7	7	7	7	8	8	7	8

REF DES	U5,11	U6	U8,22,32,34,36	U9	U10	U12,15-18,21	U13,14	U19
AMPEX P/N	590-561	001-892	590-086	587-270	587-163	590-448	590-553	590-601
VENDOR P/N	CA3140	MC7905.2	DG303	LH0002	MC1330	LM310	TL710	LF356
VOLTAGE	+12(7)-12(4)	-12(2)	+12(14)-12(8)	+12(1,2)-12(9,5)	+12(6)-12(8)	+12(7)-12(4)	—	+12(7)-12(4)
GND	—	1	7	—	—	—	1	—

Schematic No. 1467025J.
Demodulator PWA, A2, PAL/SECAM
(Sheet 1 of 3)



Schematic No. 1467025J.
Demodulator PWA, A2, PAL/SECAM
(Sheet 2 of 3)



NOTES: UNLESS OTHERWISE SPECIFIED,

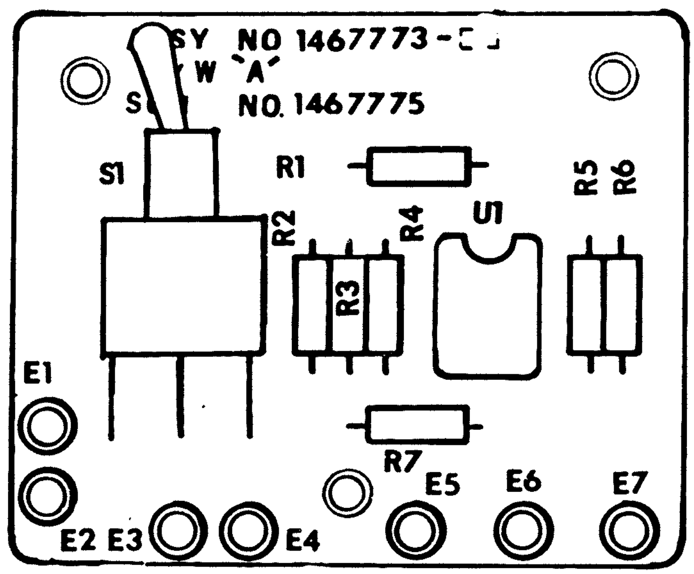
1. RESISTANCE VALUES ARE IN OHMS 1/4W 5%.
2. CAPACITANCE VALUES ARE IN MICROFARADS.
3. INDUCTOR VALUES ARE IN MICROHENRIES.
4. DIODES ARE AMPEX P/N 013-689.
5. PNP TRANSISTORS ARE P/N 019-505.
6. NPN TRANSISTORS ARE P/N 014-581.
7. TRANSISTORS USE DUAL HEATSINK.
8. TRANSISTORS USE HEATSINK.
9. FOR FUTURE DESIGN.
10. THIS SCHEMATIC REFLECTS PWA 1467023-05.
11. ALL UNUSED CMOS I.C. INPUTS ARE TIED TO APPROPRIATE LEVELS.
12. STATIC SENSITIVE, SPECIAL HANDLING REQUIRED PER AMPEX STANDARD HE 1-1.

REFERENCE DESIGNATION	
LAST USED	NOT USED
C168	C13,15
CR9	
E8	
FL3	
J20	J4
L12	
Q44	Q21
R286	R142-144
S2	
TP17	TP15
TPG8	
U48	
VR1	
T4	

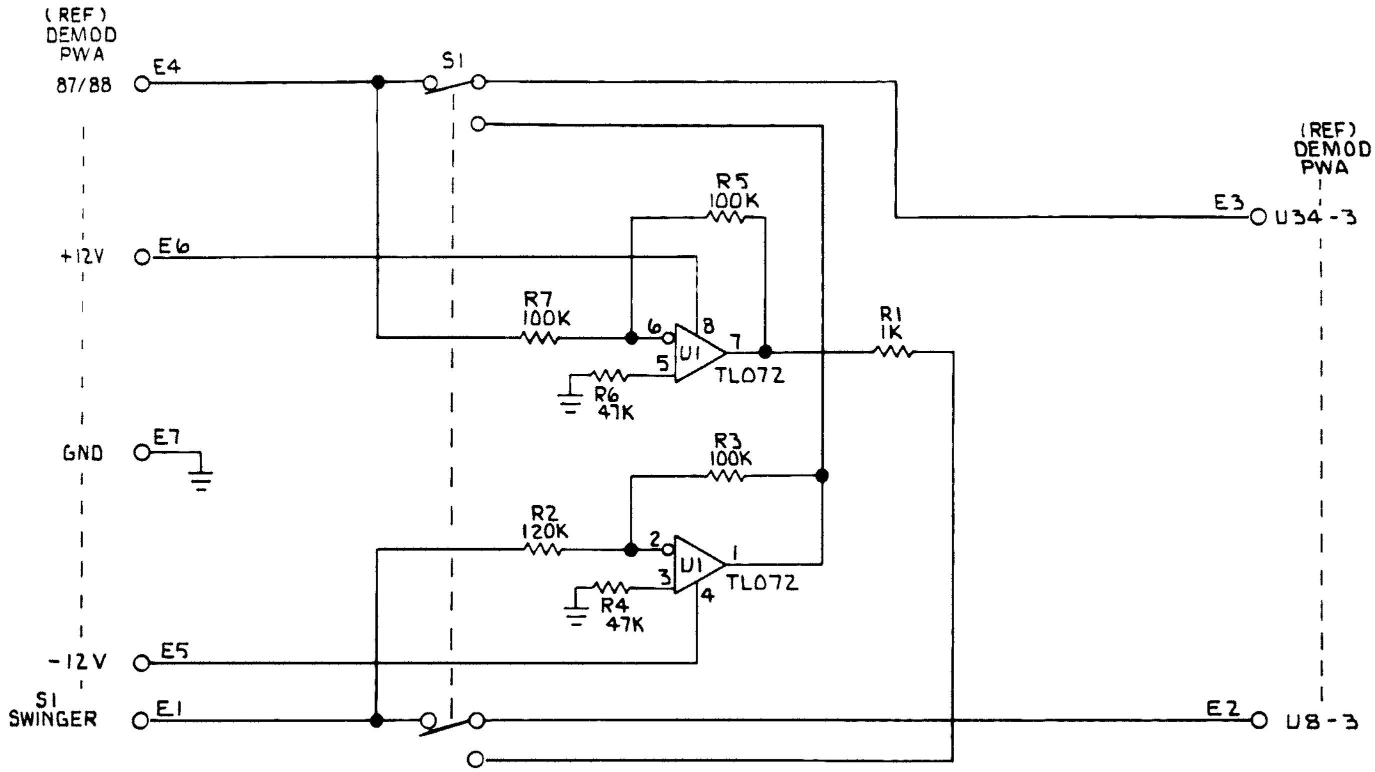
Schematic No. 1467025J.
Demodulator PWA, A2, PAL/SECAM
(Sheet 3 of 3)

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1				
2				
3	1467775	SCHEMATIC		(-)
4				
5				
6	590-502	INTEGRATED CIRCUIT, TL072		1
7				
8	066-665	RESISTOR, C.F., 1K OHMS, .25W, 5%	R1	1
9	066-717	47K	R4,6	2
10	066-849	100K	R3,5,7	3
11	066-868	RESISTOR, C.F., 120K OHMS, .25W, 5%	R2	1
12				
13				
14	119-279	SWITCH, TOGGLE, DPDT	S1	1
15				
16				
17	280-046	SPACER, THREADED, SWAGE, #2-56 X .125 LG		3

LM-1467773



Assembly No. 1467773-01-. Demod/Chroma Level Control Piggyback PWA



NOTES.
1. ALL RESISTANCE VALUES ARE IN OHMS, 1/4W, 5%.
2. THIS SCHEMATIC REFLECTS PWA, 1467773

Schematic No. 1467775-01-. Chroma Level Control Piggyback Demodulator

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03							
1													
2													
3	1467032	SCHEMATIC		D	E	G							
4													
5	1400004-01	EJECTOR, PWB		1	1	1							
6	1467008-AE	LABEL		1	1	1							
7	1467009-01	SHIELD		1	1	1							
8	250-155	BUMPER, PAD SYNTHETIC RUBBER		3	3	3							
9	283-105	SPACER, PLAIN, .140 ID X .250 OD X .125 LG		1	1	1							
10	471-063	SCREW, MACH, PAN HD., XREC, 4-40 X .438 LG		1	1	1							
11	474-500	SCREW, MACH, PAN HD., XREC, 4-40 X .312 LG		7	7	7							
12	502-002	WASHER, LOCK #4		1	1	1							
13	506-011	WASHER, BOWED		1	1	1							
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													
26	1374388-CA	INDUCTOR, VARIABLE, 1.0uH	L1	1	1	1							
27	1374388-CC	INDUCTOR, VARIABLE, .33uH	L17	1	1	1							
28	1374388-CE	INDUCTOR, VARIABLE, .47uH	L19	1	1	1							
29													
30													
31													
32													
33													
34	1208744-01	DELAY LINE	DL1,2	2	2	2							
35													
36	064-314	CAPACITOR, CER., MONO., 1.0uF, 50V, 20%	C144			1							
37													

LM-1467030

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO. 92739	LIST OF MATERIALS	LM-1467030 SHEET 2	REV L

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03
38	064-316	CAPACITOR, CER., MONO, 2.2uF, 50V, 20%	C61,99	2	2	2
39	064-652	CAPACITOR, CER., MONO, .01uF, 50V, 20%	C45,53-55,82,102, 143,144,163,166	10	10	-
40	064-652	CAPACITOR, CER., MONO., .01uF, 50V, 20%	C45,53-55,82,102, 143,163,166			9
41						
42	064-653	CAPACITOR, CER., MONO, 0.1uF, 50V, 20%	C1-11,20,22,23,26-28,31,33-37,42-44,	93	93	93
43		46,50-52,56,57,60,64-68,72-74,77,78, 80,81,84-98,100,101,103-107,114,121,				
44		125-131,133-135,137-141,145,149,155-157,159-162				
45						
46						
47						
48						
49						
50	064-666	CAPACITOR, CER., MONO, 75pF, 100V, 5%	C153	1	1	1
51						
52	064-665	56pF, 100V, 5%	C70	1	1	1
53	064-671	22pF, 100V, 5%	C21,32	2	2	2
54	064-714	51pF, 100V, 5%	C168-170	-	3	3
55	064-741	51pF, 50V, 1%	C38,132	2	2	2
56						
57	064-677	620pF, 50V, 1%	C18	1	1	1
58	064-682	220pF, 50V, 1%	C16	1	1	1
59	064-694	200pF, 100V, 5%	C154	1	1	1
60	064-688	10pF, 50V, ±.5pF	C136	1	1	1
61	064-696	180pF, 50V, 1%	C14	1	1	1
62	064-709	120pF, 100V, 5%	C59	1	1	1
63	064-718	160pF, 100V, 5%	C142,147	2	2	2
64	064-704	1000pF, 50V, 5%	C165	1	1	1
65	064-721	130pF, 100V, 5%	C79,148	2	2	2
66	064-739	33pF, 50V, ±.5pF	C108-112,116-119	9	9	9
67	064-729	15pF, 50V, ±.5pF	C71	1	1	1
68	064-730	30pF, 50V, ±.5pF	C113,115	2	2	2
69						
70	064-740	62pF, 50V, 1%	C13	1	1	1
71						
72	064-780	43pF, 50V, ±.5pF	C19	1	1	1
73	064-781	27pF, 50V, ±.5pF	C120	1	1	1
74	064-785	47pF, 50V, ±.5pF	C48	1	1	1
75						
76	064-786	12pF, 50V, ±.5pF	C15	1	1	1
77	064-788	36pF, 50V, ±.5pF	C17,58	2	2	2
78	064-791	CAPACITOR, CER., MONO, 500pF, 50V, 5%	C83	1	1	1
79						
80						
81						
82						

LM-1467030

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
83	069-090	CAPACITOR, POLYESTER, .001uF, 50V, 5%	C29,62	2	2	2
84						
85						
86	069-097	CAPACITOR, POLYESTER, .022uF, 50V, 5%	C40,41,63,75	4	4	4
87						
88						
89	069-092	CAPACITOR, POLYESTER, .047uF, 50V, 5%	C76	1	1	1
90						
91						
92						
93						
94	037-186	CAPACITOR, TANT., 120uF, 10V, 10%	C164	1	1	1
95	037-472	4.7uF, 10V,	C158	1	1	1
96	037-620	100uF, 20V	C122,123	2	2	2
97	037-507	150uF, 15V	C167	1	1	1
98	037-746	47uF, 20V,	C24,25	2	2	2
99	037-985	15uF, 20V,	C39	1	1	1
100	037-991	CAPACITOR, TANT., 22uF, 15V, 10%	C30,47,49	3	3	3
101						
102						
103						
104						
105						
106	013-224	DIODE, ZENER, IN754A, 6.8V	VR1	1	1	1
107						
108	013-450	DIODE, ZENER, IN961B, 10V	VR2	1	1	1
109						
110	013-689	DIODE, CD6016	CR1-3,5	4	4	4
111						
112						
113						
114						
115	051-770	FERRITE - CHOKE	FL1-3	3	3	3
116						
117						
118						
119						
120	068-158	INDUCTOR, FIXED, 3.22uH, 1.25%	L10	1	1	1
121	051-599	.82uH, 5%	L9	1	1	1
122						
123						
124						
125	540-003	220uH, 5%	L6,7	2	2	2
126	540-006	100uH, 5%	L13	1	1	1
127	540-050	INDUCTOR, FIXED, 47MH, 10%	L5	1	1	1

LM-1467030

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM- 1467030 SHEET 4	REV L

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
128	540-056	INDUCTOR, FIXED, 2.7uH, 5%	L11	1	1	1
129	068-039	INDUCTOR, FIXED, .22uH, 5%	L15	1	1	1
130	068-327	INDUCTOR, FIXED, 300uH, 5%	L8		1	1
131	068-331	INDUCTOR, FIXED, 1.2uH, 10%	L18		1	1
132	068-333	INDUCTOR, FIXED, 2000uH, 5%	L12,14		2	2
133	068-064	INDUCTOR, FIXED, 300uH, 5%	L8	1	-	-
134	068-087	1.2uH, 10%	L18	1	-	-
135	068-091	2000uH, 5%	L12,14	2	-	-
136						
137	068-251	1.29uH, 1.25%	L2	1	1	1
138	068-252	1.71uH, 1.25%	L3	1	1	1
139	068-253	INDUCTOR, FIXED, 4.26uH, 1.25%	L4	1	1	1
140						
141	586-255	INTEGRATED CIRCUIT, CA3019	U29-32	4	4	4
142	590-540	CA3054	U20	1	1	1
143						
144						
145						
146	000-145	NE592	U1	1	1	1
147	587-270	LH0002CN	U6	1	1	1
148						
149						
150						
151	000-146	NE529	U13	1	1	1
152	589-814	74LS04	U16	1	1	1
153	589-837	74S00	U10,17	2	2	2
154						
155	589-839	74S08	U26	1	1	1
156	589-934	74LS221	U15	1	1	1
157						
158						
159						
160	590-086	DG303CJ ▷1	U2,3,25,36	4	4	4
161	590-448	LM310P	U4,24	2	2	2
162	590-460	LM306P	U23,34,35	3	3	3
163						
164	586-776	MC1357	U11,12	2	2	2
165	587-164	MC1350	U33	1	1	1
166	590-556	CD4081BE ▷1	U14	1	1	1
167						
168	590-561	CA3140E	U5	1	1	1
169	590-601	LF356	U18,27,37	3	3	3
170	587-163	MC1330	U7,19,22,28,38	5	5	5
171						
172	590-721	INTEGRATED CIRCUIT, CA3046	U21	1	1	1

LM-1467030

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO. 92739	LIST OF MATERIALS	LM-1467030 SHEET 5	REV L

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
173	590-729	INTEGRATED CIRCUIT, CD4052BE ▷1	U6	1	1	1
174						
175						
176	590-963	INTEGRATED CIRCUIT, DG300CJ ▷1	U9	1	1	1
177						
178						
179						
180						
181	066-662	RESISTOR, C.F., 200 OHMS, .25W, 5%	R9,98,141,175 198,279	6	6	6
182						
183	066-665	1K	R11,37,111,139,164,168, 174,177,201,211,212, 221,256,261,262,273, 275,276	18	18	18
184						
185						
186	066-666	2.7K	R70,121	2	2	2
197						
188	066-667	3K	R64,89,90,93, 153	5	5	5
189	066-668	4.7K	R51,100	2	2	2
190	066-669	8.2K	R150	1	1	1
191						
192	066-673	1.0M	R99	1	1	1
193	066-675	1.8K	R197	1	1	1
194	066-677	68	R12,52,65,135 187,219,289	7	7	7
195						
196	066-689	2.2K	R228	1	1	1
197	066-711	7.5K	R97	1	1	1
198	066-715	1.2K	R39,40,291	3	3	3
199						
200	066-717	47K	R116,119,120,128,130, 180,184,229,282,283	10	10	10
201						
202	066-718	5.6K	R220	1	1	1
203	066-720	3.3K	R83,133,170, 185,287	5	5	5
204						
205	066-810	10	R30,58,148	3	3	3
206	066-812	100	R10,48,87,102,105, 156,209,240	8	8	8
207						
208	066-813	150	R80,270	2	2	2
209	066-814	270	R77	1	1	1
210						
211	066-815	300	R204	1	1	1
212	066-816	390	R243,247,278	3	3	3
213	066-817	430	R171	1	1	1
214						
215	066-818	470	R4,6,75,76,134,151,186, 199,205,241,245,288	12	12	12
216						
217	066-820	RESISTOR, C.F., 750 OHMS, .25W, 5%	R42,43,68,69	4	4	4

LM-1467030

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO. 92739	LIST OF MATERIALS	LM-1467030 SHEET 6	REV L

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
218						
219	066-824	RESISTOR, C.F., 1.5K OHMS, .25W, 5%	R131,178,285	3	3	3
220	066-826	2K	R41,91,136,188,193, 206,207,234,290	9	9	9
221						
222						
223	066-829	6.8K	R132,182,286	3	3	3
224	066-830	10K	R3,7,15,49,117,127, 160,176,196	9	9	9
225						
226	066-834	33	R18,21,137,161,166, 192,214,227,233,248, 258,263,267	13	13	13
227						
228						
229	066-837	130	R34,60	2	2	2
230	066-838	330	R5	1	1	1
231	066-839	560	R110,123	2	2	2
232						
233	066-840	680	R106,124	2	2	2
234	066-847	33K	R96	1	1	1
235	066-849	100K	R125,179,272, 274,280	5	5	5
236						
237	066-856	15K	R118,218,252	3	3	3
238	066-859	240	R122	1	1	1
239	066-864	13K	R173	1	1	1
240						
241	066-865	12K	R172,271,277	3	3	3
242	066-873	20K	R50	1	1	1
243	066-938	47	R8,16,17,20,23,28,54, 74,79,86,94,107,138, 140,143-145,154,162, 165,167,169,190,194, 213,215,216,222,230, 235,237,242,246,249, 253,257,264,266,268	39	39	39
244						
245						
246						
247						
248						
249						
250						
251						
252	076-004	180	R147	1	1	1
253	076-036	12	R149	1	1	1
254	076-045	RESISTOR, C.F., 75 OHMS, .25W, 5%	R14,32,55,157,163,250, 254,255	8	8	8
255						
256						
257						
258						
259						
260	041-404	RESISTOR, FIXED, COMP, 510 OHMS, .5W, 5%	R19,22	2	2	2
261						
262						

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AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467030 SHEET 7	REV L

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
263	042-378	RESISTOR, M.F., 8.25K OHMS, .125W, 1%	R203	1	1	1
264						
265						
266						
267	062-625	1.21K	R27,84,85,152, 265	5	5	5
268	062-643	2K	R95	1	1	1
269	062-833	71.5	R66	1	1	1
270						
271	062-836	75	R13,217	2	2	2
272	062-839	80.6	R26	1	1	1
273						
274	062-840	82.5	R269	1	1	1
275	062-853	118	R200	1	1	1
276	062-855	121	R71,82	2	2	2
277						
278	062-856	124	R142,195,236	3	3	3
279	062-863	147	R24,25,259, 260	4	4	4
280	062-874	200	R239	1	1	1
281						
282	062-880	249	R35,36	2	2	2
283	062-881	261	R2,62,78	3	3	3
284	062-887	332	R31,56	2	2	2
285						
286	062-893	392	R112,113,238	3	3	3
287	062-897	422	R72,73	2	2	2
288	062-902	499	R114,115,158, 159	4	4	4
289						
290	062-911	634	R61	1	1	1
291	062-913	681	R92	1	1	1
292	062-922	909	R104,251	2	2	2
293	062-925	1.05K	R46	1	1	1
294	062-932	1.5K	R146	1	1	1
295	062-948	2.55K	R191,224,226, 232	4	4	4
296	062-952	2.87K	R103	1	1	1
297						
298	062-963	4.32K	R202	1	1	1
299	062-972	5.62K	R29,33,57,59	4	4	4
300	062-982	9.09K	R47	1	1	1
301						
302	066-387	53.6K	R45	1	1	1
303	066-004	24.3K	R63	1	1	1
304						
305	066-454	1.91K	R189,223,225, 231	4	4	4
306						
307	066-601	RESISTOR, M.F., 10.2K OHMS, .125W, 1%	R88	1	1	1

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AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467030 SHEET 8	REV L

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
308	066-921	RESISTOR, M.F., 294 OHMS, .125W, 1%	R208,210	2	2	2
309	066-791	RESISTOR, M.F., 1.37K OHMS, .125W, 1%	R244	1	1	1
310						
311						
312						
313						
314	044-891	RESISTOR, VARIABLE, 200 OHMS, .5W, 20%	R81	1	1	1
315	044-927	500 OHMS, .5W, 20%	R108	1	1	1
316						
317	044-944	5K OHMS, .5W, 20%	R109	1	1	1
318						
319						
320	058-004	1K OHMS, .5W, 20%	R44	1	1	1
321	058-251	100K OHMS, .5W, 20%	R126,183,281	3	3	3
322	058-473	1K OHMS, .5W, 10%	R38,67	2	2	2
323						
324	044-259	250 OHMS, .5W, 10%	R1	1	1	1
325	044-272	100 OHMS, .5W, 10%	R101	1	1	1
326	058-611	10K OHMS, .5W, 20%	R53	1	1	1
327						
328	058-651	RESISTOR, VARIABLE, 2K OHMS, .5W, 10%	R129,181,284	3	3	3
329						
330						
331						
332						
333						
334	014-505	TRANSISTOR, 2N3251	Q2,8,10,11,12, 22,31	7	7	7
335	014-581	TRANSISTOR, 2N2369A	Q1,3,9,13-16,17-21,24-30,32	20	20	20
336						
337						
338						
339						
340	014-600	TRANSISTOR, 2N2946A	Q23	1	1	1
341						
342	014-852	TRANSISTOR, DUAL, MD2369A	Q4,6	2	2	2
343						
344						
345						
346	580-840	TRANSISTOR, MPSH81	Q5,7	2	2	2
347						
348						
349						
350						
351	075-273	RESISTOR PART, MTG PLATE	REF:R1,38,67,101	4	4	4
352	075-274	RESISTOR PART, WIRING BOARD	REF:R1,38,67,101	4	4	4

LM-1467030

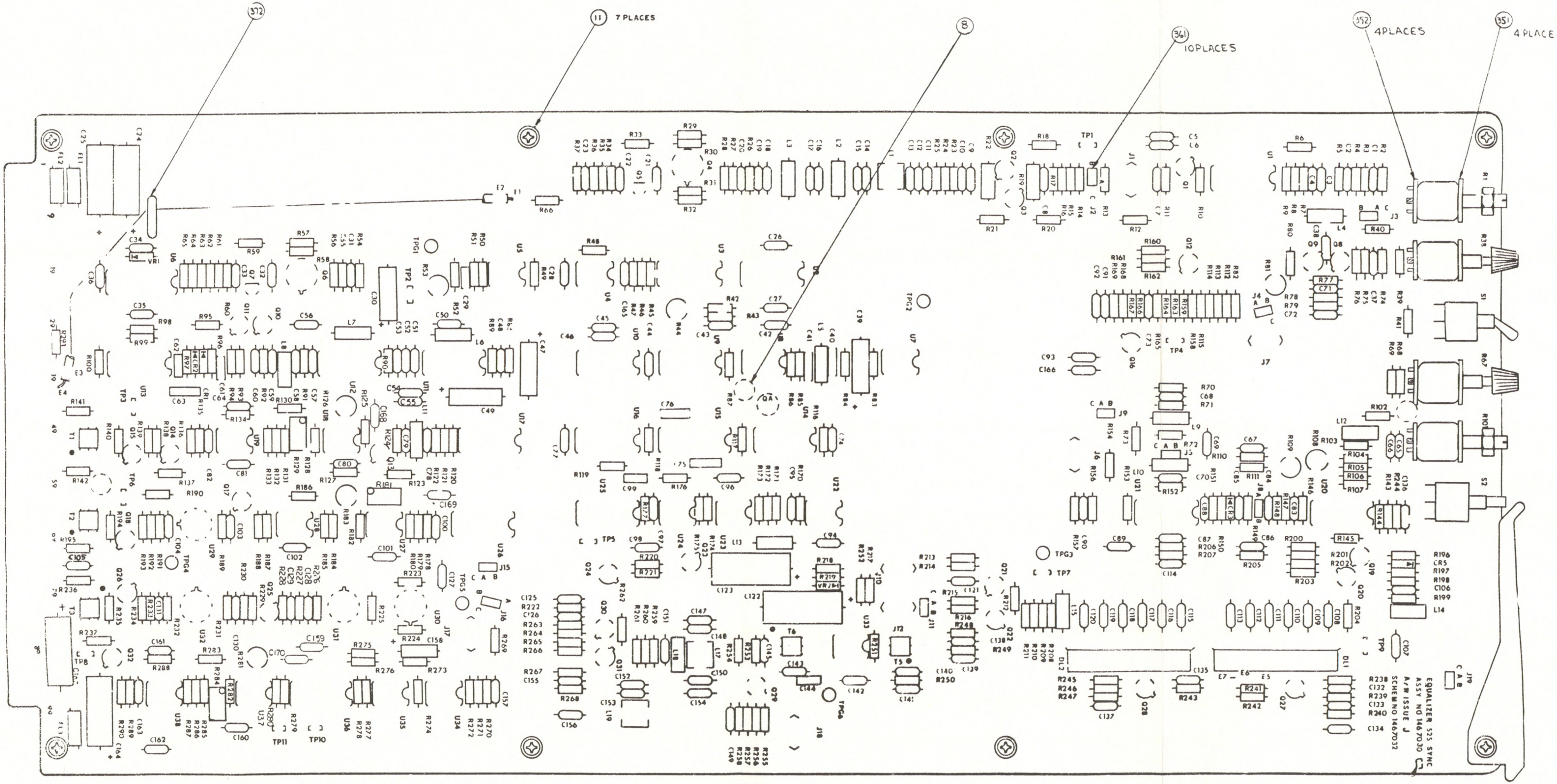
AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467030 SHEET 9	REV L

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
353	120-967	SWITCH, TOGGLE, SPDT	S1	1	1	1
354	119-855	SWITCH, PUSH, SPDT, MOMENTARY	S2	1	1	1
355						
356						
357	139-037	CONNECTOR, SIGNAL CIRCUIT, RECEPT, 1 COAX PIN	J1,6,7,10, 12,17,18	7	7	7
358						
359						
360						
361	140-437	JACK, SHORTING, 2 CONTACT	J2-5,8,9,11, 15,16,19	10	10	10
362						
363						
364						
365	187-055	TERMINAL, WIREWRAP	REF:J2-5,8,9,11, 15,16,19	29	29	29
366	187-259	TERMINAL, PRINTED CIRCUIT	TP1-11	11	11	11
367						
368						
369						
370	230-144	KNOB, ROUND, MARKED	REF:R38,67	2	2	2
371						
372	302-395	STRAP, CABLE, "MOUSETAIL"		1	1	1
373						
374	560-471	TRANSFORMER, WIDEBAND, T1-1T	T6	1	1	1
375						
376						
377						
378	570-435	TRANSFORMER, WIDEBAND, T4-1T	T1-3,5	4	4	4
379						
380						
381	615-004	WIRE, BARE, SOLID, #24 AWG	REF:E6,7	A/R	A/R	A/R
382						
383						
384	616-569	CABLE, COAX, 75 OHM	REF:E1-4	A/R	A/R	A/R

NOTES:

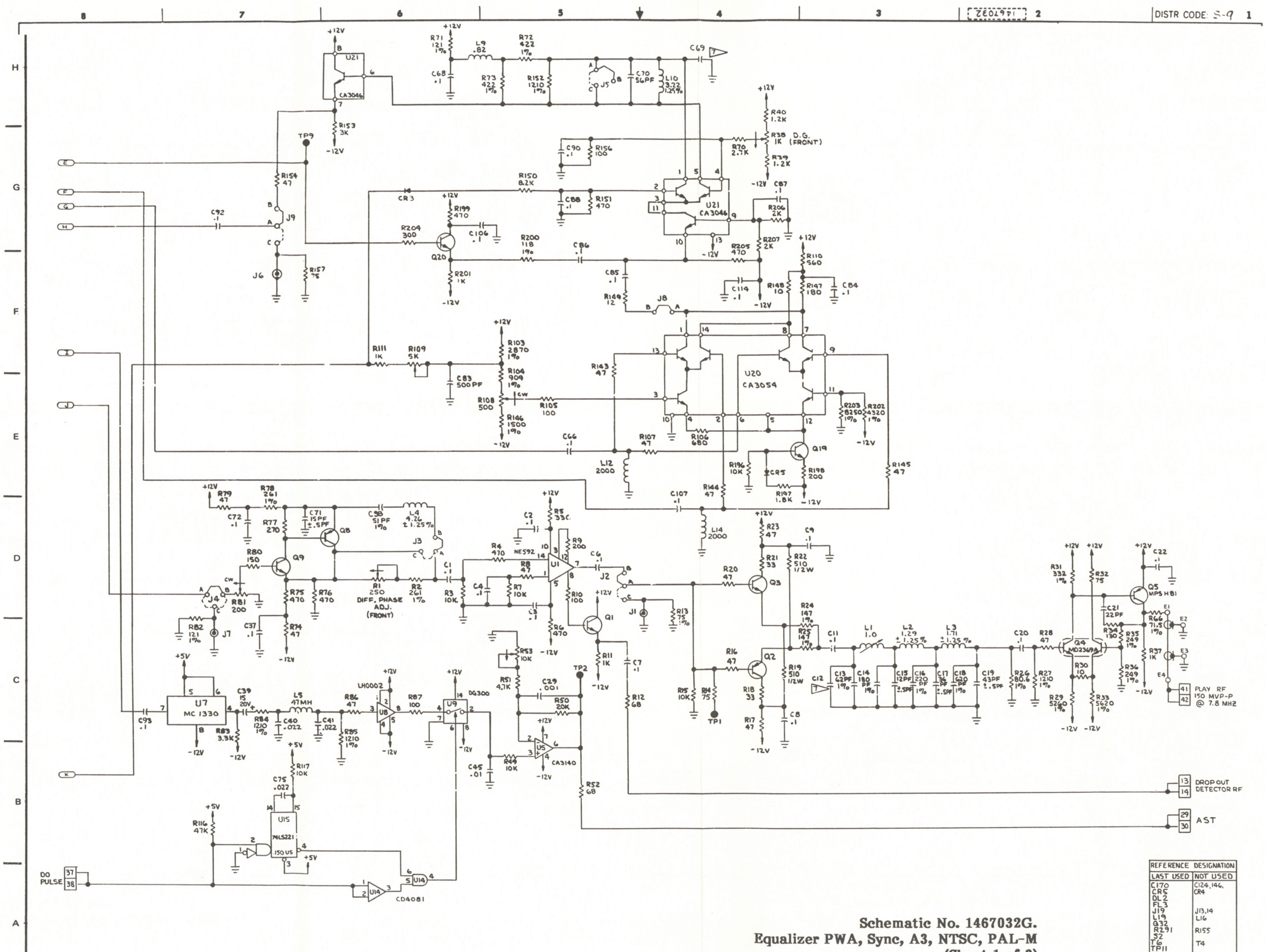
1. STATIC SENSITIVE, SPECIAL HANDLING REQUIRED PER AMPEX STD HE1-1.

LM-1467030



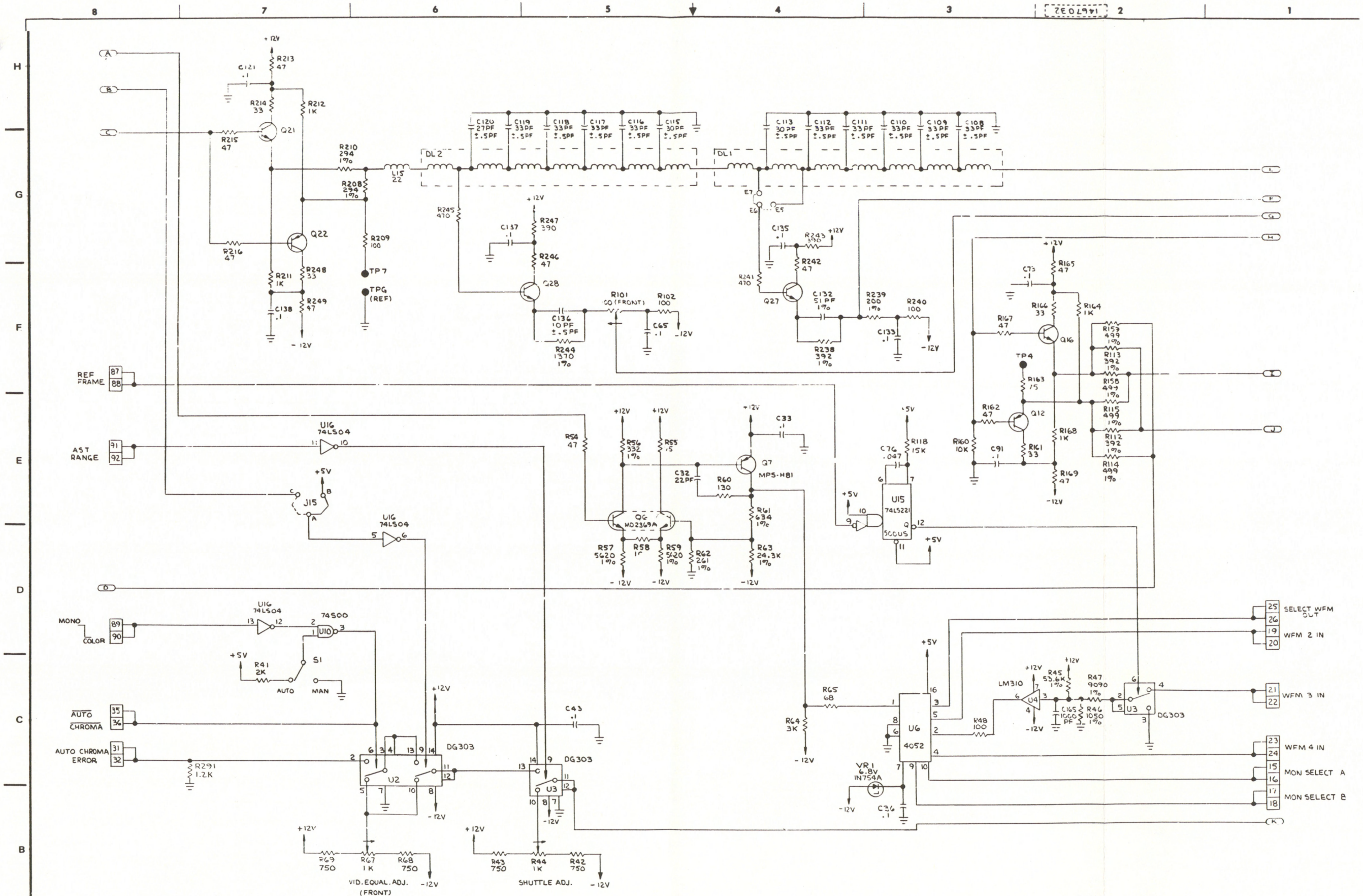
COMPONENT SIDE

Assembly No. 1467030-03L.
Equalizer PWA, A3, Sync, NTSC, PAL-M



REFERENCE DESIGNATION	
LAST USED	NOT USED
C170	C124, 146,
CR5	CR4
DL2	
FL3	
J19	J13, 14
L19	L16
Q32	
R291	R155
S2	
T6	T4
TP11	
TPG6	
U38	
VR2	

Schematic No. 1467032G.
Equalizer PWA, Sync, A3, NTSC, PAL-M
(Sheet 1 of 3)



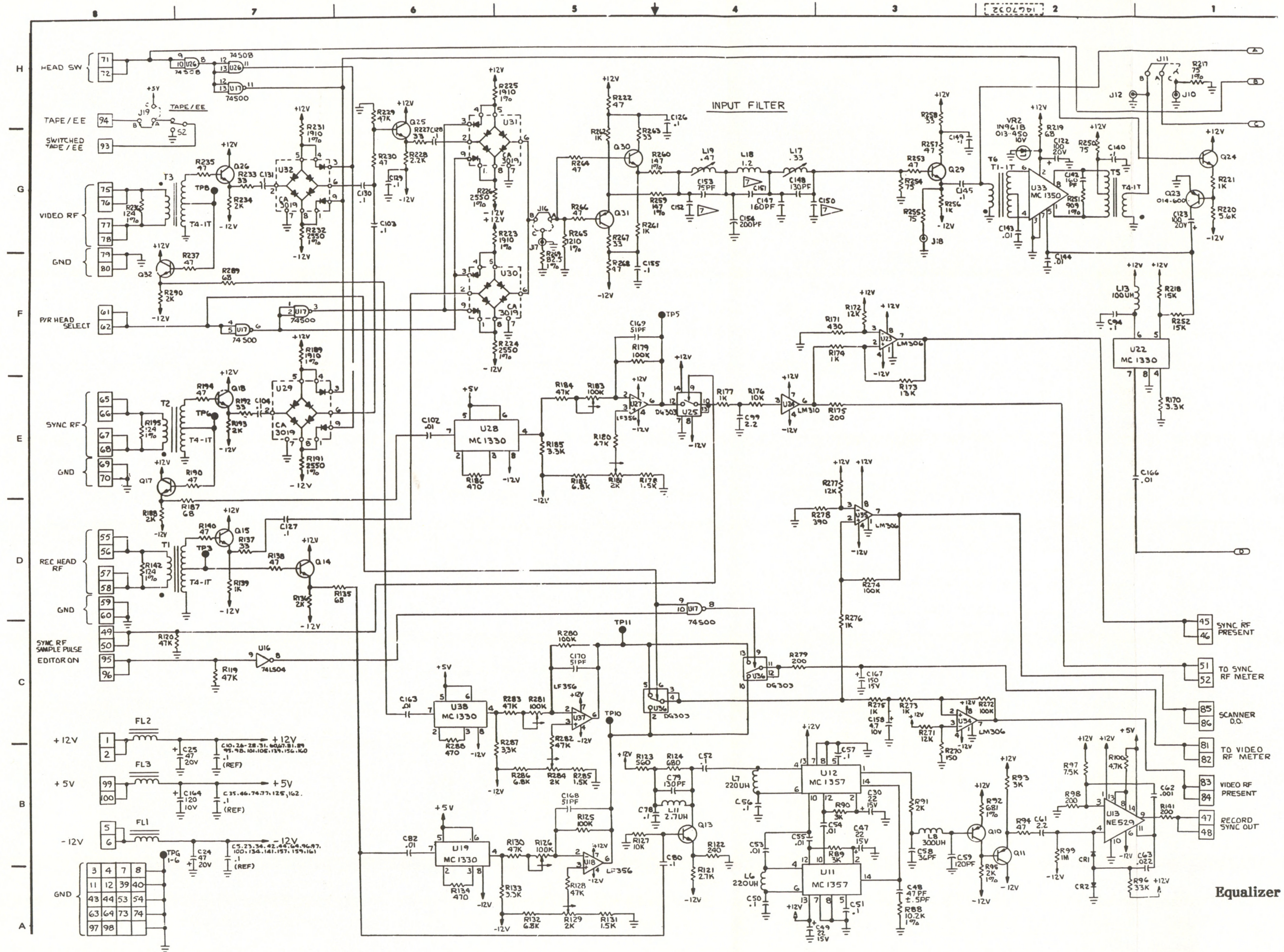
NOTES: UNLESS OTHERWISE SPECIFIED.

1. RESISTANCN VALUES AKE IN OHMS. 1/4W, 5%.
2. CAPACITANCE VALUES ARE IN MICROFARADS.
3. INDUCTANCE VALUES ARE IN MICROHENERIES.
4. DIODES ARE AMPEX P/N. 013-689.
5. PNP TRANSISTORS ARE AMPEX P/N 014-505
6. NPN TRANSISTORS ARE AMPEX P/N 014-581
7. FOR FUTURE DESIGN
8. SCHEMATIC REFLECTS ASSY 1467030-02.
9. ALL UNUSED CMOS IC INPUTS ARE TIED TO APPROPRIATE LEVELS.

IC LIST

REF DES	U1	U2,3,25,36	U4,24	U5	U6	U7,19,22,28,38	U8	U9	U10,17	U11,12
AMPEX PN	000-145	590-086	590-448	590-561	590-729	587-163	587-270	590-963	589-837	586-776
VENDOR PN	NE592NB	DG303CJ	LM310P	CA3140E	CD4052BE	MC1330	LH0002CN	DG300CJ	74S00	MC1357
VOLTAGE (PIN)	—	+12V(14)-12V(8)	+12V(7)-12V(4)	+12V(7)-12V(4)	+5V (6)	—	+12V(1,2)-12V(4,5)	+12V(14)-12V(8)	+5V (14)	+12V (13)
GROUND	—	7	—	—	8	—	—	7	7	7, 8
REF DES	U13	U14	U15	U16	U18,27,37	U20	U21	U23,34,35	U26	U29-32
AMPEX PN	000-146	590-556	589-923	589-814	590-601	590-540	590-721	590-460	589-839	586-255
VENDOR PN	NE529NB	CD4081BE	74LS221	74LS04	LF356	CA3054	CA3046	LM306P	74S08	CA3019
VOLTAGE (PIN)	+12V(1)-12V(6)+5V(14)	+5V (14)	+5V (16)	+5V (14)	+12V(7)-12V(4)	—	-12V (13)	+12V(8)-12V(4)	+5V (14)	—
GROUND	10	7	8	7	—	10	—	1	7	—

Schematic No. 1467032G.
Equalizer PWA, Sync, A3, NTSC, PAL-M
(Sheet 2 of 3)



Schematic No. 1467032G.
Equalizer PWA, Sync, A3, NTSC, PAL-M
(Sheet 3 of 3)

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03
1						
2						
3	1467035	SCHEMATIC		C	D	E
4						
5	1400004-01	EJECTOR, PWB		1	1	1
6	1467008-AF	LABEL		1	1	1
7	1467009-01	SHIELD		1	1	1
8	250-155	BUMPER, PAD SYNTHETIC RUBBER		3	3	3
9	283-105	SPACER, PLAIN, .140 ID X .250 OD X .125 LG		1	1	1
10	471-063	SCREW, MACH, PAN HD, XREC, 4-40 X .438 LG		1	1	1
11	474-500	SCREW, MACH, PAN HD, XREC, 4-40 X .312 LG		7	7	7
12	502-002	WASHER, LOCK #4		1	1	1
13	506-011	WASHER, BOWED		1	1	1
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26	1374388-CA	INDUCTOR, VARIABLE, 1.0uH	L1	1	1	1
27	1374388-CC	INDUCTOR, VARIABLE, .33uH	L17	1	1	1
28	1374388-CE	INDUCTOR, VARIABLE, .47uH	L19	1	1	1
29						
30						
31						
32						
33						
34	1208744-01	DELAY LINE	DL1,2	2	2	2
35						
36	064-314	CAPACITOR, CER., MONO., 1.0uF, 50V, 20%	C144			1
37						

LM-1467033

AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467033 SHEET 2	REV H

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
38	064-316	CAPACITOR, CER. MONO, 2.2uF, 50V, 20%	C61,99	2	2	2
39	064-652	.01uF, 50V, 20%	C45,53-55,82,102, 143,163,166	10	10	9
40						
41						
42	064-653	CAPACITOR, CER. MONO, 0.1uF, 50V, 20%	C1-11,20,22,23,26-28,31,33-36,37,	93	93	93
43		42-44,46,50-52,56,57,60,64-68,72-74,77,78, 80,81,84-98,100,101,103-107,114,121,				
44		125-131,133-135,137-141,145,149,155-157, 159-162				
45						
46						
47						
48						
49	064-658	CAPACITOR, CER. MONO, 5pF, 50V, ±.5pF	C71	1	1	1
50	064-666	75pF, 100V, 5%	C153	1	1	1
51						
52						
53	064-671	22pF, 100V, 5%	C21,32	2	2	2
54	064-714	51pF, 100V, 5%	C168,169,170	[illegible]	3	3
55	064-741	51pF, 50V, 1%	C38,70,132	3	3	3
56						
57	064-677	620pF, 50V, 1%	C18	1	1	1
58	064-682	220pF, 50V, 1%	C14	1	1	1
59	064-694	200pF, 100V, 5%	C154	1	1	1
60	064-688	10pF, 50V, ±.5pF	C15,136	2	2	2
61	064-696	180pF, 50V, 1%	C19	1	1	1
62	064-709	120pF, 100V, 5%	C59	1	1	1
63	064-718	160pF, 100V, 5%	C142,147	2	2	2
64	064-704	1000pF, 50V, 5%	C165	1	1	1
65	064-721	130pF, 100V, 5%	C79,148	2	2	2
66	064-739	33pF, 50V, ±.5pF	C108-111,113, 116-119	9	9	9
67						
68	064-735	24pF, 50V, ±.5pF	C115	1	1	1
69	064-726	270pF, 50V, 1%	C16	1	1	1
70	064-740	62pF, 50V, 1%	C13	1	1	1
71						
72						
73	064-781	27pF, 50V, ±.5pF	C112,120	2	2	2
74	064-785	47pF, 50V, ±.5pF	C48	1	1	1
75						
76	064-786	12pF, 50V, ±.5pF	C12	1	1	1
77	064-788	36pF, 50V, ±.5pF	C17,58	2	2	2
78	064-791	CAPACITOR, CER. MONO, 500pF, 50V, 5%	C83	1	1	1
79						
80						
81						
82						

LM-1467033

AMPEX | Ampex Corporation REDWOOD CITY CALIFORNIA | CODE IDENT NO 92739 | LIST OF MATERIALS | LM-1467033 SHEET 3 | REV H

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
83	069-090	CAPACITOR, POLYESTER, .001uF, 50V, 5%	C29,62	2	2	2
84						
85						
86	069-097	.022uF,	C40,41,63,75	4	4	4
87						
88						
89	069-092	CAPACITOR, POLYESTER, .047uF, 50V, 5%	C76	1	1	1
90						
91						
92						
93						
94	037-186	CAPACITOR, TANT, 120uF, 10V, 10%	C164	1	1	1
95	037-472	4.7uF, 10V,	C158	1	1	1
96	037-620	100uF, 20V,	C122,123	2	2	2
97	037-507	150uF, 15V,	C167	1	1	1
98	037-746	47uF, 20V,	C24,25	2	2	2
99	037-985	15uF, 20V,	C39	1	1	1
100	037-991	CAPACITOR, TANT, 22uF, 15V, 10%	C30,47,49	3	3	3
101						
102						
103						
104						
105						
106	013-224	DIODE, ZENER, IN754A, 6.8V	VR1	1	1	1
107						
108	013-450	, ZENER, IN961B, 10V	VR2	1	1	1
109						
110	013-689	DIODE, CD6016	CR1-3,5	4	4	4
111						
112						
113						
114						
115	051-770	FERRITE-CHOKE	FL1-3	3	3	3
116						
117						
118						
119						
120	068-158	INDUCTOR, FIXED, 3.22uH, 1.25%	L10	1	1	1
121	051-599	.82uH, 5%	L9	1	1	1
122						
123						
124						
125	540-003	220uH, 5%	L6,7	2	2	2
126	540-006	100uH, 5%	L13	1	1	1
127	540-050	INDUCTOR, FIXED, 47MH, 10%	L5	1	1	1

LM-1467033

AMPEX Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467033 SHEET 4	REV H

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
128	540-056	INDUCTOR, FIXED, 2.7uH, 5%	L11	1	1	1
129	068-039	.22uH, 5%	L15	1	1	1
130	068-327	300uH, 5%	L8		1	1
131	068-331	1.2uH, 10%	L18		1	1
132	068-333	2000uH, 5%	L12,14		2	2
133	068-064	300uH, 5%	L8	1	-	-
134	068-087	1.2uH, 10%	L18	1	-	-
135	068-091	INDUCTOR, FIXED, 2000uH, 5%	L12,14	2	-	-
136						
137	068-284	INDUCTOR, FIXED, 1.51uH, 1.25%	L2	1	1	1
138	068-285	INDUCTOR, FIXED, 2.10uH, 1.25%	L3	1	1	1
139	068-286	INDUCTOR, FIXED, 5.30uH, 1.25%	L4	1	1	1
140						
141	586-255	INTEGRATED CIRCUIT, CA3019	U29-32	4	4	4
142	590-540	CA3054	U20	1	1	1
143						
144						
145						
146	000-145	NE592	U1	1	1	1
147	587-270	LH0002CN	U8	1	1	1
148						
149						
150						
151	000-146	NE529	U13	1	1	1
152	589-614	74LS04	U16	1	1	1
153	589-837	74S00	U10,17	2	2	2
154						
155	589-839	74S08	U26	1	1	1
156	589-934	74LS221	U15	1	1	1
157						
158						
159						
160	590-086	DG303CJ	▷1 U2,3,25,36	4	4	4
161	590-448	LM310P	U4,24	2	2	2
162	590-460	LM306P	U23,34,35	3	3	3
163						
164	586-776	MC1357	U11,12	2	2	2
165	587-164	MC1350	U33	1	1	1
166	590-556	CD4081BE	▷1 U14	1	1	1
167						
168	590-561	CA3140E	U5	1	1	1
169	590-601	LF356	U18,27,37	3	3	3
170	587-163	MC1330	U7,19,22,28,38	5	5	5
171						
172	590-721	INTEGRATED CIRCUIT, CA3046	U21	1	1	1

LM-1467033

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
				QTY REQD PER DASH NUMBER		
173	590-729	INTEGRATED CIRCUIT, CD4052BE ⟨1⟩	U6	1	1	1
174						
175						
176	590-963	INTEGRATED CIRCUIT, DG300CJ ⟨1⟩	U9	1	1	1
177						
178						
179						
180						
181	066-662	RESISTOR, C.F., 200 OHMS, .25W, 5%	R9,98,141,175,198,279	6	6	6
182						
183	066-665	1K	R11,37,111,139,164,168,174,177,201,211,212,221,256,261,262,273,275,276	18	18	18
184						
185						
186	066-666	2.7K	R70,121	2	2	2
187						
188	066-667	3K	R64,89,90,93,153	5	5	5
189	066-668	4.7K	R51,100	2	2	2
190	066-669	6.2K	R150	1	1	1
191						
192	066-673	1.0M	R99	1	1	1
193	066-675	1.8K	R197	1	1	1
194	066-677	68	R12,52,65,135,187,219,289	7	7	7
195						
196	066-689	2.2K	R228	1	1	1
197	066-711	7.5K	R97	1	1	1
198	066-715	1.2K	R39,40,291	3	3	3
199						
200	066-717	47K	R116,119,120,128,130,180,184,229,282,283	10	10	10
201						
202	066-718	5.6K	R220		1	1
203	066-720	3.3K	R83,133,170,185,287	5	5	5
204						
205	066-810	10	R30,58,148	3	3	3
206	066-812	100	R10,48,87,102,105,156,209,240	8	8	8
207						
208	066-813	150	R80,270	2	2	2
209	066-814	270	R77	1	1	1
210						
211	066-815	300	R204	1	1	1
212	066-816	390	R243,247,278	3	3	3
213	066-817	430	R171	1	1	1
214						
215	066-818	470	R4,6,75,76,134,151,186,199,205,241,245,288	12	12	12
216						
217	066-820	RESISTOR, C.F., 750 OHMS, .25W, 5%	R42,43,68,69	4	4	4

LM-1467033

AMPEX | Ampex Corporation, Redwood City, California	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467C33 SHEET 6	REV H

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
218						
219	066-624	RESISTOR, C.F., 1.5K OHMS, .25W, 5%	R131,178,285	3	3	3
220	066-826	2K	R41,91,136,188,193, 206,207,234,290	9	9	9
221						
222						
223	066-829	6.8K	R132,182,286	3	3	3
224	066-830	10K	R3,7,15,49,117,127, 160,176,196	9	9	9
225						
226	066-834	33	R18,21,137,161,166, 192,214,227,233,248, 258,263,267	13	13	13
227						
228						
229	066-837	130	R34,60	2	2	2
230	066-838	330	R5	1	1	1
231	066-839	560	R110,123	2	2	2
232						
233	066-840	680	R106,124	2	2	2
234	066-847	33K	R96	1	1	1
235	066-849	100K	R125,179,272, 274,280	5	5	5
236						
237	066-856	15K	R118,218,252	3	3	3
238	066-859	240	R122		1	1
239	066-864	13K	R173		1	1
240						
241	066-865	12K	R172,271,277	3	3	3
242	066-873	20K	R50		1	1
243	066-938	47	R8,16,17,20,23,28,54,74, 79,86,94,107,138,140, 143-145,154,162,165,167, 169,190,194,213,215,216, 222,230,235,237,242,246, 249,253,257,264,266,268	39	39	39
244						
245						
246						
247						
248						
249						
250						
251						
252	076-004	180	R147		1	1
253	076-036	12	R149		1	1
254	076-045	RESISTOR, C.F., 75 OHMS, .25W, 5%	R14,32,55,157,163, 250,254,255	8	8	8
255						
256						
257						
258						
259						
260	041-404	RESISTOR, FIXED, COMP, 510 OHMS, .5W, 5%	R19,22	2	2	2
261						
262						

LM-1467033

AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467033 SHEET 7	REV H

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
263	042-378	RESISTOR, M.F., 8.25K OHMS, .125W, 1%	R203	1	1	1
264						
265						
266						
267	062-625	1.21K	R27,84,85,265	4	4	4
268	062-643	2K	R95	1	1	1
269	062-833	71.5	R66	1	1	1
270	062-684	243	R2	1	1	1
271	062-836	75	R13,217	2	2	2
272	062-839	80.6	R26	1	1	1
273						
274	062-840	82.5	R269	1	1	1
275	062-853	116	R200	1	1	1
276	062-855	121	R71,82	2	2	2
277						
278	062-856	124	R142,195,236	3	3	3
279	062-863	147	R24,25,259, 260	4	4	4
280	062-874	200	R239	1	1	1
281						
282	062-880	249	R35,36	2	2	2
283	062-881	261	R62,78	2	2	2
284	062-887	332	R31,56	2	2	2
285						
286	062-893	392	R112,113,238	3	3	3
287	062-897	422	R72,73	2	2	2
288	062-902	499	R114,115,158, 159	4	4	4
289	062-945	2.43K	R152	1	1	1
290	062-911	634	R61	1	1	1
291	062-913	681	R92	1	1	1
292	062-922	909	R104,251	2	2	2
293	062-925	1.05K	R46	1	1	1
294	062-932	1.5K	R146	1	1	1
295	062-943	2.55K	R191,224,226, 232	4	4	4
296	062-952	2.87K	R103	1	1	1
297	062-971	5.49K	R244	1	1	1
298	062-963	4.32K	R202	1	1	1
299	062-972	5.62K	R29,33,57,59	4	4	4
300	062-982	9.09K	R47	1	1	1
301						
302	066-387	53.6K	R45	1	1	1
303	066-004	24.3K	R63	1	1	1
304						
305	066-454	1.91K	R189,223,225, 231	4	4	4
306						
307	066-601	RESISTOR, M.F., 10.2K OHMS, .125W, 1%	R88	1	1	1

LM-1467033

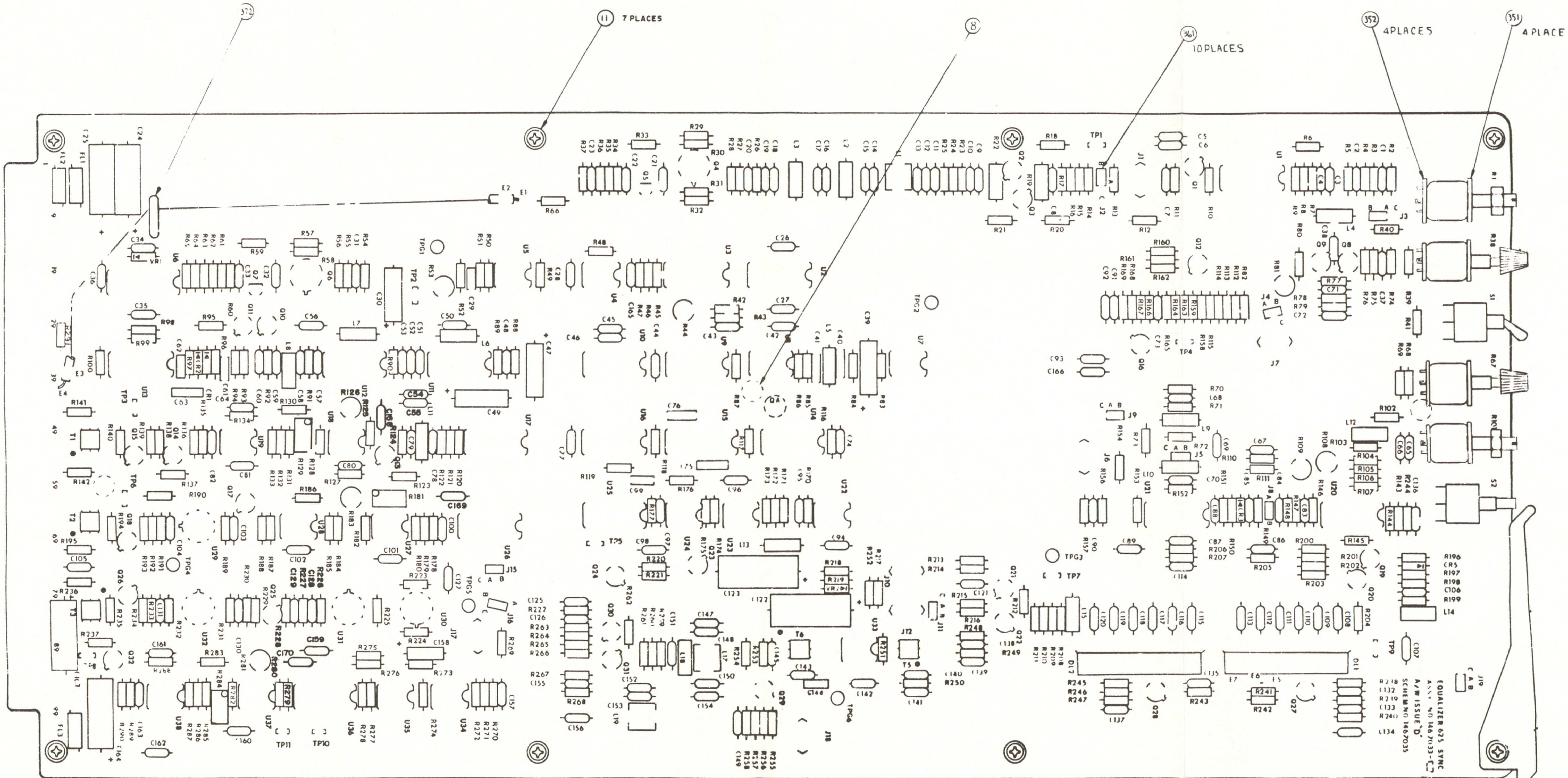
ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-0	-02	-03
308	066-921	RESISTOR, M.F., 294 OHMS, .125W, 1%	R208,210	2	2	2
309						
310						
311						
312						
313						
314	044-891	RESISTOR, VARIABLE, 200 OHMS, .5W, 20%	R81		1	1
315	044-927	500 20%	R108		1	1
316						
317	044-944	5K 20%	R109		1	1
318						
319						
320	058-004	1K 20%	R44		1	1
321	058-251	100K 20%	R126,183,281	3	3	3
322	058-473	1K 10%	R38,67	2	2	2
323						
324	044-259	250 10%	R1		1	1
325	044-272	100 10%	R101		1	1
326	058-611	10K 20%	R53		1	1
327						
328	058-651	RESISTOR, VARIABLE, 2K OHMS, .5W, 10%	R129,181,284	3	3	3
329						
330						
331						
332						
333						
334	014-505	TRANSISTOR, 2N3251	Q2,8,10,11,12,22,31	7	7	7
335	014-581	2N2369A	Q1,3,9,13-16,17-21,24-30,32	20	20	20
336						
337						
338						
339						
340	014-600	2N2946A	Q23	1	1	1
341						
342	014-852	DUAL, MD2369A	Q4,6	2	2	2
343						
344						
345						
346	580-840	TRANSISTOR, MPSH81	Q5,7	2	2	2
347						
348						
349						
350						
351	075-273	RESISTOR PART, HTC PLATE	REF:R1,38,67,101	4	4	4
352	075-274	RESISTOR PART, WIRING BOARD	REF:R1,38,67,101	4	4	4

LM-1467033

AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467033 SHEET 9	REV H

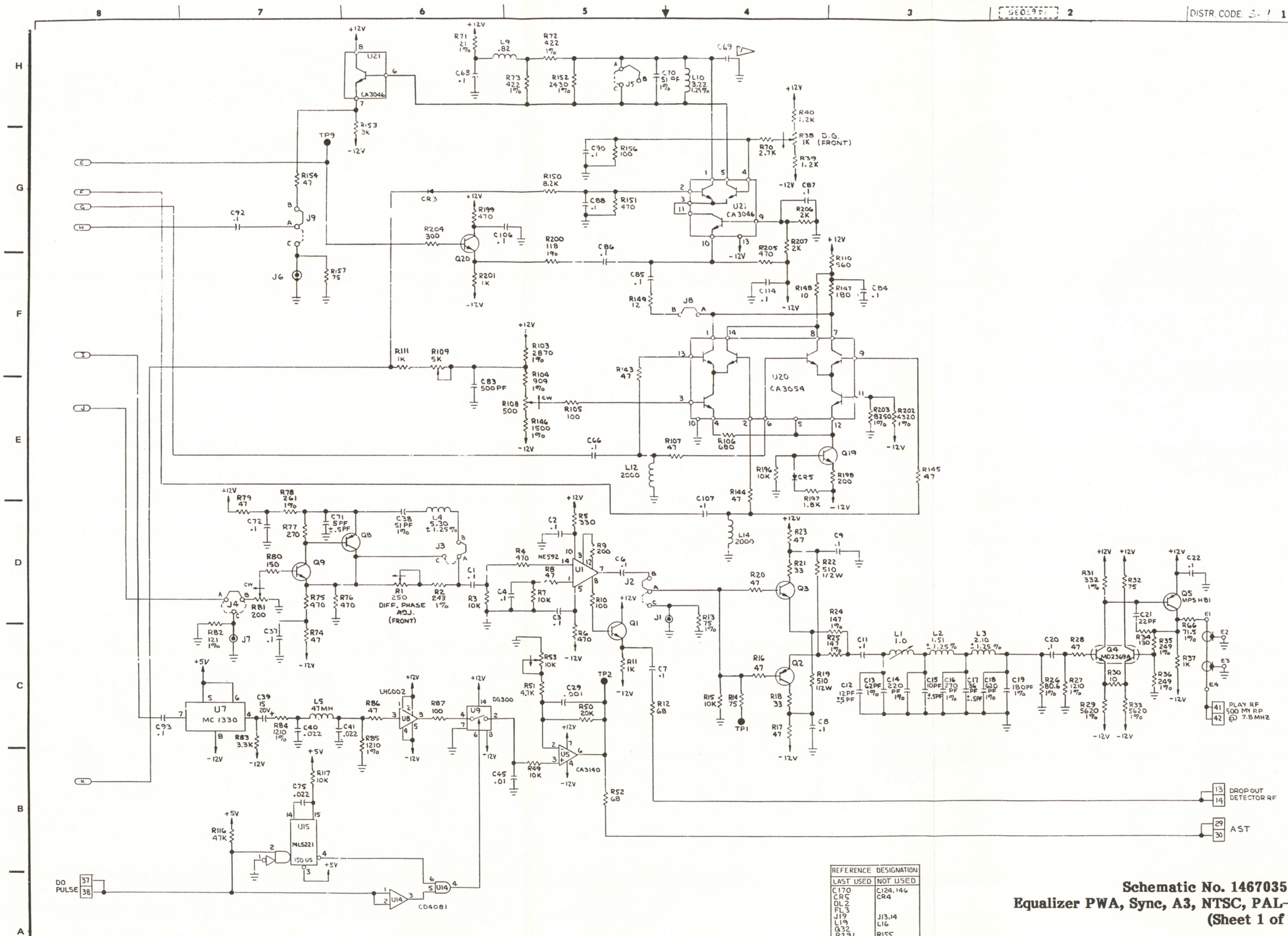
ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
353	120-967	SWITCH, TOGGLE, SPDT	S1	1	1	1
354	119-855	SWITCH, PUSH, SPDT, MOMENTARY	S2	1	1	1
355						
356						
357	139-037	CONNECTOR, SIGNAL CIRCUIT, RECEPT, 1 COAX PIN	J1,6,7,10, 12,17,18	7	7	7
358						
359						
360						
361	140-437	JACK, SHORTING, 2 CONTACT	J2-5,8,9,11,15, 16,19	10	10	10
362						
363						
364						
365	187-055	TERMINAL, WIREWRAP	REF:J2-5,8,9,11, 15,16,19	29	29	29
366	187-259	TERMINAL, PRINTED CIRCUIT	TP1-11	11	11	11
367						
368						
369						
370	230-144	KNOB, ROUND, MARKED	REF:R38,67	2	2	2
371						
372	302-395	STRAP, CABLE, "MOUSETAIL"		1	1	1
373						
374	560-471	TRANSFORMER, WIDEBAND, T1-1T	T6	1	1	1
375						
376						
377						
378	570-435	TRANSFORMER, WIDEBAND, T4-1T	T1-3,5	4	4	4
379						
380						
381	615-004	WIRE, BARE, SOLID, #24 AWG	REF:E5,6	A/R	A/R	A/R
382						
383						
384	616-569	CABLE, COAX, 75 OHM	REF:E1-4	A/R	A/R	A/R
385						
386						
387						
388						
389						
390						
391						
392					1	
393		NOTES:				
394		1 STATIC SENSITIVE, SPECIAL HANDLING REQUIRED PER AMPEX STD HE1-1.				
395						
396						
397						

LM-1467033



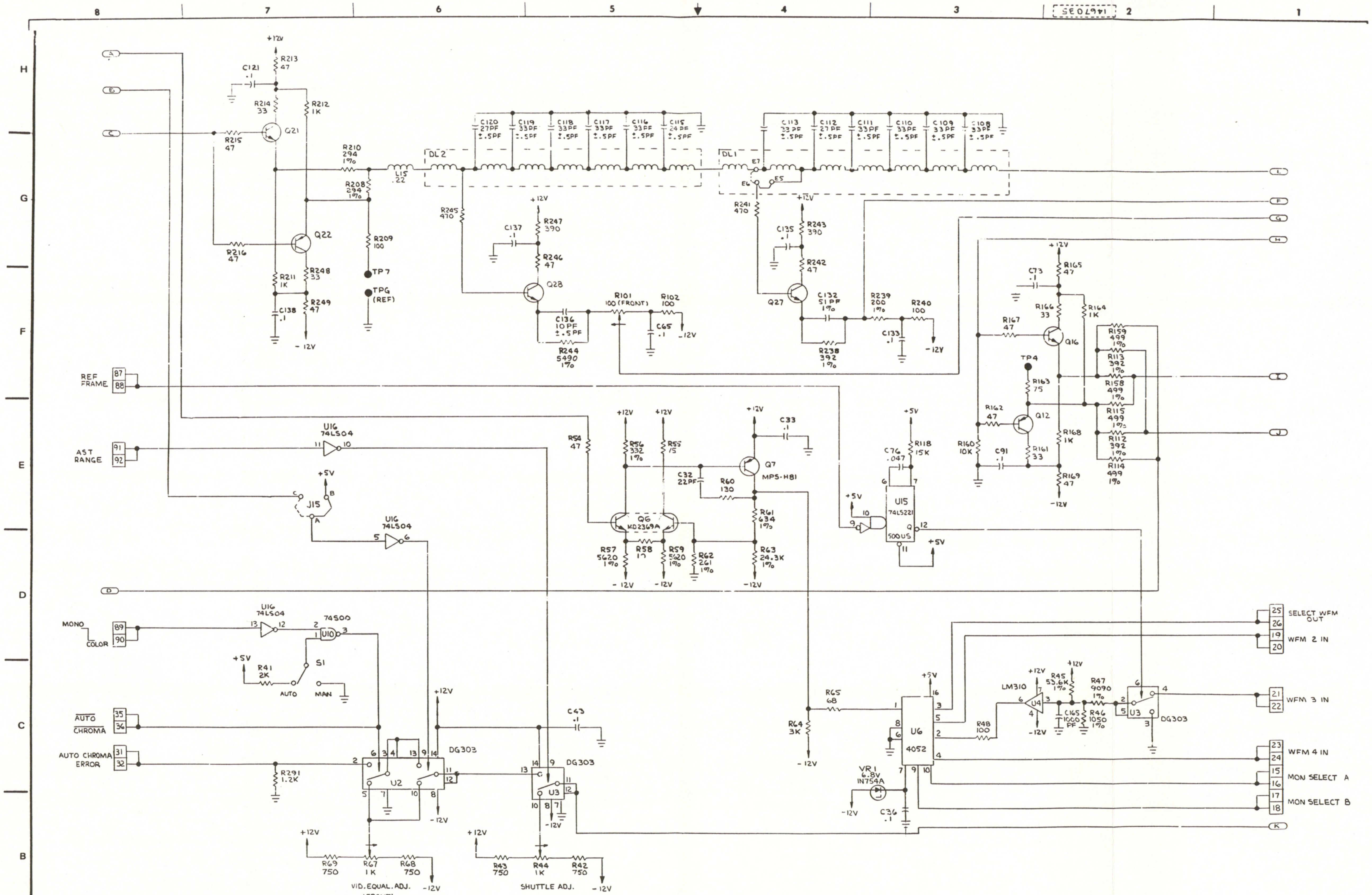
COMPONENT SIDE

Assembly No. 1467033-03H.
Equalizer PWA, A3, Sync, PAL/SECAM



Schematic No. 1467035E.
Equalizer PWA, Sync, A3, NTSC, PAL-M
(Sheet 1 of 3)

REFERENCE DESIGNATION	
LAST USED	NOT USED
C170	C124,146
CR5	CR4
DL2	
FL3	
J19	J13,14
L19	L16
Q32	
R291	R155
S2	
T6	T4
TP11	
TPG6	
U38	
VR2	



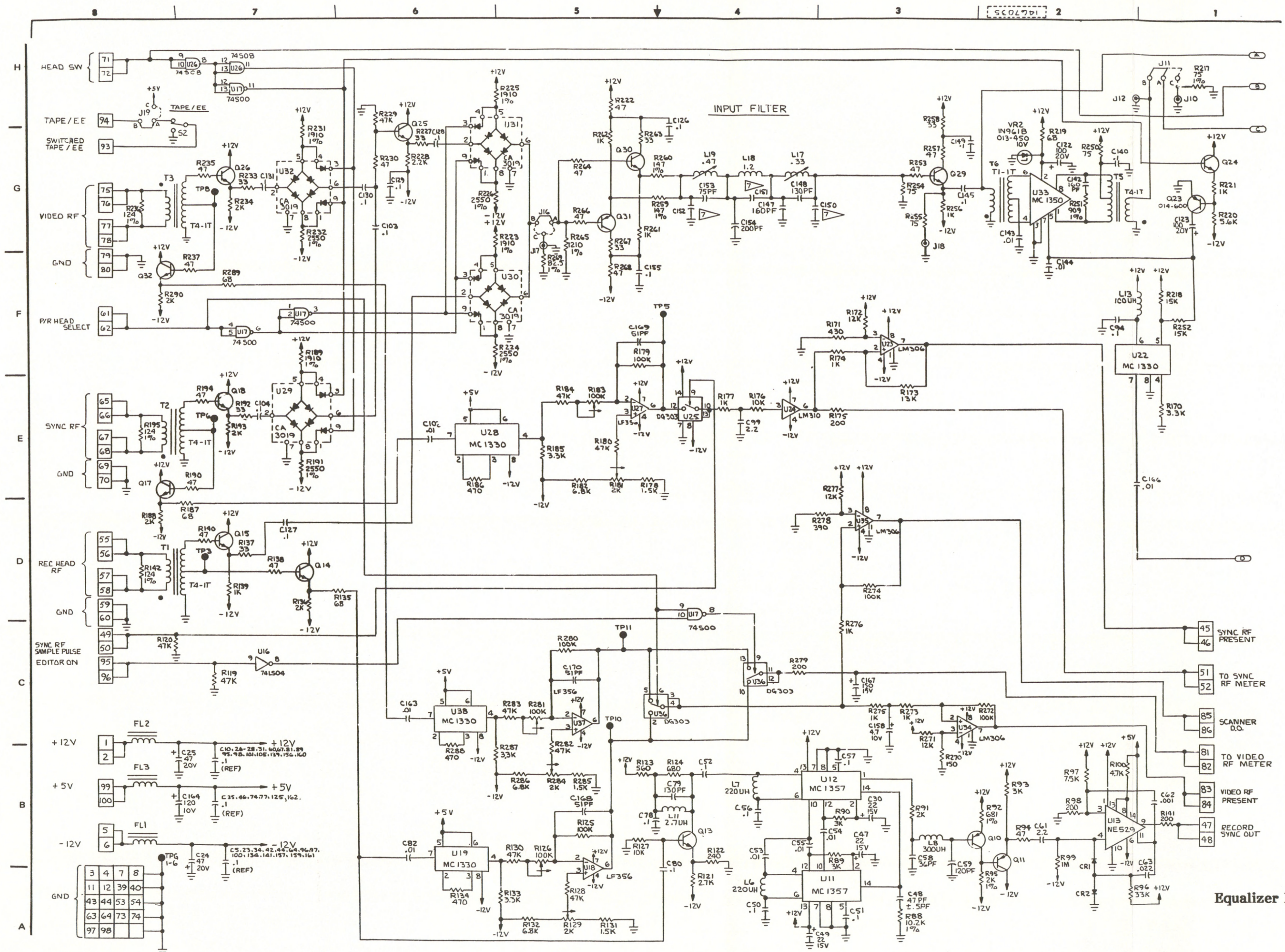
NOTES: UNLESS OTHERWISE SPECIFIED.

1. RESISTANCN VALUES AKE IN OHMS. 1/4W, 5%.
2. CAPACITANCE VALUES ARE IN MICROFARADS.
3. INDUCTANCE VALUES ARE IN MICROHENERIES.
4. DIODES ARE AMPEX P/N. 013-689.
5. PNP TRANSISTORS ARE AMPEX P/N 014-505
6. NPN TRANSISTORS ARE AMPEX P/N 014-581
7. FOR FUTURE DESIGN
8. SCHEMATIC REFLECTS ASSY 1467033-02.
9. ALL UNUSED CMOS I.C. INPUTS ARE TIED TO APPROPRIATE LEVELS.

IC LIST

REF DES	U1	U2,3,25,36	U4,24	U5	U6	U7,19,22,28,38	U8	U9	U10,17	U11,12
AMPEX PN	000-145	590-086	590-448	590-561	590-729	587-163	587-270	590-963	589-837	586-776
VENDOR PN	NE592NB	DG303CJ	LM310P	CA3140E	CD4052BE	MC1330	LH0002CN	DG300CJ	74S00	MC1357
VOLTAGE (PIN)	—	+12V(14)-12V(8)	+12V(7)-12V(4)	+12V(7)-12V(4)	+5V(6)	—	+12V(1,2)-12V(4.5)	+12V(14)-12V(8)	+5V(14)	+12V(13)
GROUND	—	7	—	—	8	—	—	7	7	7, 8
REF DES	U13	U14	U15	U16	U18,27,37	U20	U21	U23,34,35	U26	U29-32
AMPEX PN	000-146	590-556	589-923	589-814	590-601	590-540	590-721	590-460	589-839	586-255
VENDOR PN	NE529NB	CD4081BE	74LS221	74LS04	LF356	CA3054	CA3046	LM306P	74S08	CA3019
VOLTAGE (PIN)	+12V(1)-12V(6)+5V(14)	+5V(14)	+5V(16)	+5V(14)	+12V(7)-12V(4)	—	-12V(13)	+12V(8)-12V(4)	+5V(14)	—
GROUND	10	7	8	7	—	10	—	1	7	—

Schematic No. 1467035E.
Equalizer PWA, Sync, A3, NTSC, PAL-M
(Sheet 2 of 3)



Schematic No. 1467035E.
Equalizer PWA, Sync, A3, NTSC, PAL-M
(Sheet 3 of 3)

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
1						
2						
3	1467232	SCHEMATIC		(-)	A	B
4						
5	1400004-01	EJECTOR, PWB		1	1	1
6	1467008-AE	LABEL		1	1	1
7	1467009-01	SHIELD		1	1	1
8	250-155	BUMPER, PAD SYNTHETIC RUBBER		3	3	3
9	283-105	SPACER, PLAIN, .140 ID X 250 OD X .125 LG		1	1	1
10	471-063	SCREW, MACH, PAN HD., XREC, #4-40 X .438 LG		1	1	1
11	474-500	SCREW, MACH, PAN HD., XREC, #4-40 X .312 LG		7	7	7
12	502-002	WASHER, LOCK, #4		1	1	1
13	506-011	WASHER, BOWED		1	1	1
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26	1374388-CA	INDUCTOR, VARIABLE, 1.0uH	L1	1	1	1
27	1374388-CC	INDUCTOR, VARIABLE, .33uH	L16	1	1	1
28	1374388-CE	INDUCTOR, VARIABLE, .47uH	L18	1	1	1
29						
30						
31						
32						
33						
34	1208744-01	DELAY LINE	DL1,2	2	2	2
35						
36						
37						

LM-1467230

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
38	064-316	CAPACITOR, CER., MONO, 2.2uF, 50V, 20%	C69	1	1	1
39	064-652	CAPACITOR, CER., MONO, .01uF, 50V, 20%	C38,52,62,63,64, 87,138,139,153	9	9	9
40						
41						
42	064-653	CAPACITOR, CER., MONO, 0.1uF, 50V, 20%	C1-11,20,22,23,26, 29-36,39,42,44,45,	85	85	85
43		47-51,56,60,61,65,68,72,73,74,76,78, 81,82,84,85,86,90-101,103,116,117,				
44		119,123-129,131-136,140,145,146,147, 149-152,40				
45						
46						
47						
48						
49						
50	064-666	CAPACITOR, CER., MONO, 75pF, 100V, 5%	C144	1	1	1
51						
52	064-665	56pF, 100V, 5%	C77	1	1	1
53	064-671	22pF, 100V, 5%	C21,46	2	2	2
54	064-714	51pF, 100V, 5%	C156,157	-	2	2
55	064-741	51pF, 50V, 1%	C27,130	2	2	2
56						
57	064-677	620pF, 50V, 1%	C18	1	1	1
58	064-682	220pF, 50V, 1%	C16	1	1	1
59	064-694	200pF, 100V, 5%	C142	1	1	1
60	064-688	10pF, 50V, ±.5pF	C88	1	1	1
61	064-696	180pF, 50V, 1%	C14	1	1	1
62	064-709	120pF, 100V, 5%	C67	1	1	1
63	064-718	160pF, 100V, 5%	C120,137	2	2	2
64	064-704	1000pF, 50V, 5%	C37	1	1	1
65	064-721	130pF, 100V, 5%	C83,121	2	2	2
66	064-739	33pF, 50V, ±.5pF	C104-108,111-114	9	9	9
67	064-729	15pF, 50V, ±.5pF	C28	1	1	1
68	064-730	30pF, 50V, ±.5pF	C109,110	2	2	2
69						
70	064-740	62pF, 50V, 1%	C13	1	1	1
71						
72	064-780	43pF, 50V, ±.5pF	C13	1	1	1
73	064-781	27pF, 50V, ±.5pF	C115	1	1	1
74	064-785	47pF, 50V, ±.5pF	C58	1	1	1
75						
76	064-786	12pF, 50V, ±.5pF	C15	1	1	1
77	064-788	36pF, 50V, ±.5pF	C17,66	2	2	2
78	064-791	CAPACITOR, CER., MONO, 500pF, 50V, 5%	C89	1	1	1
79						
80						
81						
82						

LM-1467230

AMPEX	Ampex Corporation REDWOOD CITY CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467230 SHEET 3 OF 10	REV C

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
83	069-090	CAPACITOR, POLYESTER, .001uF, 50V, 5%	C41,70	2	2	2
84						
85						
86	069-097	CAPACITOR, POLYESTER, .022uF, 50V, 5%	C54,55,71,79	4	4	4
87						
88						
89	069-092	CAPACITOR, POLYESTER, .047uF, 50V, 5%	C80	1	1	1
90						
91						
92						
93						
94	037-186	CAPACITOR, TANT., 120uF, 10V, 10%	C154	1	1	1
95	037-472	4.7uF, 10V, 10%	C148	1	1	1
96	037-620	100uF, 20V, 10%	C102,118	2	2	2
97	037-507	150uF, 15V, 10%	C155	1	1	1
98	037-746	47uF, 20V, 10%	C24,25	2	2	2
99	037-985	15uF, 20V, 10%	C53	1	1	1
100	037-991	CAPACITOR, TANT., 22uF, 15V, 10%	C43,57,59	3	3	3
101						
102						
103						
104						
105						
106	013-224	DIODE, ZENER, IN754A, 6.8V	VR1	1	1	1
107						
108	013-450	DIODE, ZENER, IN961B, 10V	VR2	1	1	1
103						
110	013-689	DIODE, CD6016	CR1-4	4	4	4
111						
112						
113						
114						
115	051-770	FERRITE-CHOKE	FL1,2,3	3	3	3
116						
117						
118						
119						
120	068-158	INDUCTOR, FIXED, 3.22uH, 1.25%	L11	1	1	1
121	051-599	.82uH, 5%	L10	1	1	1
122						
123						
124						
125	540-003	220uH, 5%	L6,7	2	2	2
126	540-006	100uH, 5%	L12	1	1	1
1.7	540-050	INDUCTOR, FIXED, 47MH, 10%	L5	1	1	1

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ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
128	540-056	INDUCTOR, FIXED, 2.7uH, 5%	L13	1	1	1
129	068-039	INDUCTOR, FIXED, .22uH, 5%	L15	1	1	1
130	068-327	INDUCTOR, FIXED, 300uH, 5%	L8		1	1
131	068-331	INDUCTOR, FIXED, 1.2uH, 10%	L17		1	1
132	068-333	INDUCTOR, FIXED, 2000uH, 5%	L9,14		2	2
133	068-064	INDUCTOR, FIXED, 300uH, 5%	L8	1	-	-
134	068-087	↕ 1.2uH, 10%	L17	1	-	-
135	068-091	↕ 2000uH, 5%	L9,14	2	-	-
136						
137	068-251	↕ 1.29uH, 1.25%	L2	1	1	1
138	068-252	↕ 1.71uH, 1.25%	L3	1	1	1
139	068-253	INDUCTOR, FIXED, 4.26uH, 1.25%	L4	1	1	1
140						
141	586-255	INTEGRATED CIRCUIT, CA3019	U23,24	2	2	2
142	590-540	↕ CA3054	U20	1	1	1
143						
144						
145						
146	000-145	↕ NE592	U1	1	1	1
147	587-270	↕ LH0002CN	U8	1	1	1
148						
149						
150						
151	000-146	↕ NE529	U13	1	1	1
152	589-814	↕ 74LS04	U16	1	1	1
153	589-837	↕ 74S00	U10,17	2	2	2
154						
155						
156	589-934	↕ 74LS221	U15	1	1	1
157						
158						
159						
160	590-086	↕ DG303CJ (1)	U2,3,28	3	3	3
161	590-448	↕ LM310P	U4	1	1	1
162	590-460	↕ LM306P	U26,27	2	2	2
163						
164	586-776	↕ MC1357	U11,12	2	2	2
165	587-164	↕ MC1350	U25	1	1	1
166	590-556	↕ CD4081BE (1)	U14	1	1	1
167						
168	590-561	↕ CA3140E	U5	1	1	1
169	590-601	↕ LF356	U18,29	2	2	2
170	587-163	↕ MC1330	U7,19,22,30	4	4	4
171						
172	590-721	INTEGRATED CIRCUIT, CA3046	U21	1	1	1

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ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
173	590-729	INTEGRATED CIRCUIT, CD4052BE (1)	U6	1	1	1
174						
175						
176	590-963	INTEGRATED CIRCUIT, DG300CJ (1)	U9	1	1	1
177						
178						
179						
180						
181	066-662	RESISTOR, C.F., 200 OHMS, .25W, 5%	R9,112,154, 172,248	5	5	5
182						
183	066-665	1K	R11,37,62,66,125,152, 176,185,186,202,203,234 242,244,245	15	15	15
184						
185						
186	066-666	2.7K	R95,134	2	2	2
187						
188	066-667	3K	R90,103,104, 107,166	5	5	5
189	066-668	4.7K	R77,114	2	2	2
190	066-669	8.2K	R164	1	1	1
191						
192	066-673	1.0M	R113	1	1	1
193	066-675	1.8K	R171	1	1	1
194	066-677	68	R12,78,91,148, 197,258	6	6	6
195						
196	066-689	2.2K	R215	1	1	1
197	066-711	7.5K	R111	1	1	1
198	066-715	1.2K	R39,41,260	3	3	3
199						
200	066-717	47K	R130,133,141,143,216, 251,252	7	7	7
201						
202						
203	066-720	3.3K	R97,146,169, 256	4	4	4
204						
205	066-810	10	R30,84,162	3	3	3
206	066-812	100	R10,74,101,116,119,167, 183,225	8	8	8
207						
208	066-813	150	R49,239	2	2	2
209	066-814	270	R46	1	1	1
210						
211	066-815	300	R174	1	1	1
212	066-816	330	R228,231,247	3	3	3
213						
214						
215	066-818	470	R4,6,43,44,147,165,173, 179,226,229,257	11	11	11
216						
217	066-820	RESISTOR, C.F., 750 OHMS, .25W, 5%	R68,69,93,94	4	4	4

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AMPEX Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467230 SHEET 6 OF 10	REV C

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
218						
219	066-824	RESISTOR, C.F., 1.5K OHMS, .25W, 5%	R144,254	2	2	2
220	066-826	2K	R45,105,149,180, 181,219,259	7	7	7
221						
222						
223	066-829	6.8K	R145,255	2	2	2
224	066-830	10K	R3,7,15,51,75,131, 140,170	8	8	8
225						
226	066-834	33	R18,21,52,64,150, 188,191,205,214, 218,236,237	12	12	12
227						
228						
229	066-837	130	R34,86	2	2	2
230	066-838	330	R5	1	1	1
231	066-839	560	R124,136	2	2	2
232						
233	066-840	680	R120,137	2	2	2
234	066-847	33K	R110	1	1	1
235	066-849	100K	R138,241,243, 249	4	4	4
236						
237	066-856	15K	R132,195,196	3	3	3
238	066-859	240	R135	1	1	1
239						
240						
241	066-865	12K	R240,246	2	2	2
242	066-873	20K	R76	1	1	1
243	066-938	47	R8,16,17,20,23,28,42, 48,53,63,65,67,80,100, 108,121,129,151,153,157, 158,159,187,189,190,192, 198,204,206,208,217,220, 222,227,230,235,238	37	37	37
244						
245						
246						
247						
248						
249						
250						
251						
252	076-004	180	R161	1	1	1
253	076-036	12	R163	1	1	1
254	076-045	RESISTOR, C.F., 75 OHMS, .25W, 5%	R14,32,61,81,168,199, 232,233	8	8	8
255						
256						
257						
258						
259						
260	041-404	RESISTOR, FIXED, COMP, 510 OHMS, .5W, 5%	R19,22	2	2	2
261						
262						

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ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
263	042-378	RESISTOR, M.F., 8.25K OHMS, .125W, 1%	R178	1	1	1
264						
265						
266						
267	062-625	1.21K	R27,98,99, 127,207	5	5	5
268	062-643	2K	R109	1	1	1
269	062-833	71.5	R38	1	1	1
270						
271	062-836	75	R13,194	2	2	2
272	062-839	80.6	R26	1	1	1
273						
274	062-840	82.5	R209	1	1	1
275	062-853	118	R175	1	1	1
276	062-855	121	R54,96	2	2	2
277						
278	062-856	124	R155,221	2	2	2
279	062-863	147	R24,25,200, 201	4	4	4
280	062-874	200	R224	1	1	1
281						
282	062-880	249	R35,36	2	2	2
283	062-881	261	R2,47,88	3	3	3
284	062-887	332	R31,82	2	2	2
285						
286	062-893	392	R55,56,223	3	3	3
287	062-897	422	R126,128	2	2	2
288	062-902	499	R57-60	4	4	4
289						
290	062-911	634	R87	1	1	1
291	062-913	681	R106	1	1	1
292	062-922	909	R118,193	2	2	2
293	062-925	1.05K	R72	1	1	1
294	062-932	1.5K	R160	1	1	1
295	062-948	2.55K	R210,213	2	2	2
296	062-952	2.87K	R117	1	1	1
297						
298	062-963	4.32K	R177	1	1	1
299	062-972	5.62K	R29,33,83,85	4	4	4
300	062-982	9.09K	R73	1	1	1
301						
302	066-387	53.6K	R71	1	1	1
303	066-004	24.3K	R89	1	1	1
304						
305	066-454	1.91K	R211,212	2	2	2
306						
307	066-601	RESISTOR, M.F., 10.2K OHMS, .125W, 1%	R102	1	1	1

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ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
308	066-921	RESISTOR, M.F., 294 OHMS, .125W, 1%	R182,194	2	2	2
309	066-791	RESISTOR, M.F., 1.37K OHMS, .125W, 1%	R156	1	1	1
310						
311						
312						
313						
314	044-891	RESISTOR, VARIABLE, 200 OHMS, .5W, 20%	R50	1	1	1
315	044-927	500 OHMS, .5W, 20%	R122	1	1	1
316						
317	044-944	5K OHMS, .5W, 20%	R123	1	1	1
318						
319						
320	058-004	1K OHMS, .5W, 20%	R70	1	1	1
321	058-251	100K OHMS, .5W, 20%	R139,250	2	2	2
322	058-473	1K OHMS, .5W, 10%	R40,92	2	2	2
323						
324	044-259	250 OHMS, .5W, 10%	R1	1	1	1
325	044-272	100 OHMS, .5W, 10%	R115	1	1	1
326	058-611	10K OHMS, .5W, 20%	R79	1	1	1
327						
328	058-651	RESISTOR, VARIABLE, 2K OHMS, .5W, 10%	R142,253	2	2	2
329						
330						
331						
332						
333						
334	014-505	TRANSISTOR, 2N3251	Q2,6,8,12,13, 22,25	7	7	7
335	014-581	TRANSISTOR, 2N2369A	Q1,3,7,9,14-21, 23,24,26,27,28	17	17	17
336						
337						
338						
339						
340						
341						
342	014-852	TRANSISTOR, DUAL, MD2369A	Q4,10	2	2	2
343						
344						
345						
346	580-840	TRANSISTOR, MPSH81	Q5,11	2	2	2
347						
348						
349						
350						
351	075-373	RESISTOR PART, MTG PLATE	REF:R1,40,92,115	4	4	4
352	075-274	RESISTOR PART, WIRING BOARD	REF:R1,40,92,115	4	4	4

LM-1467230

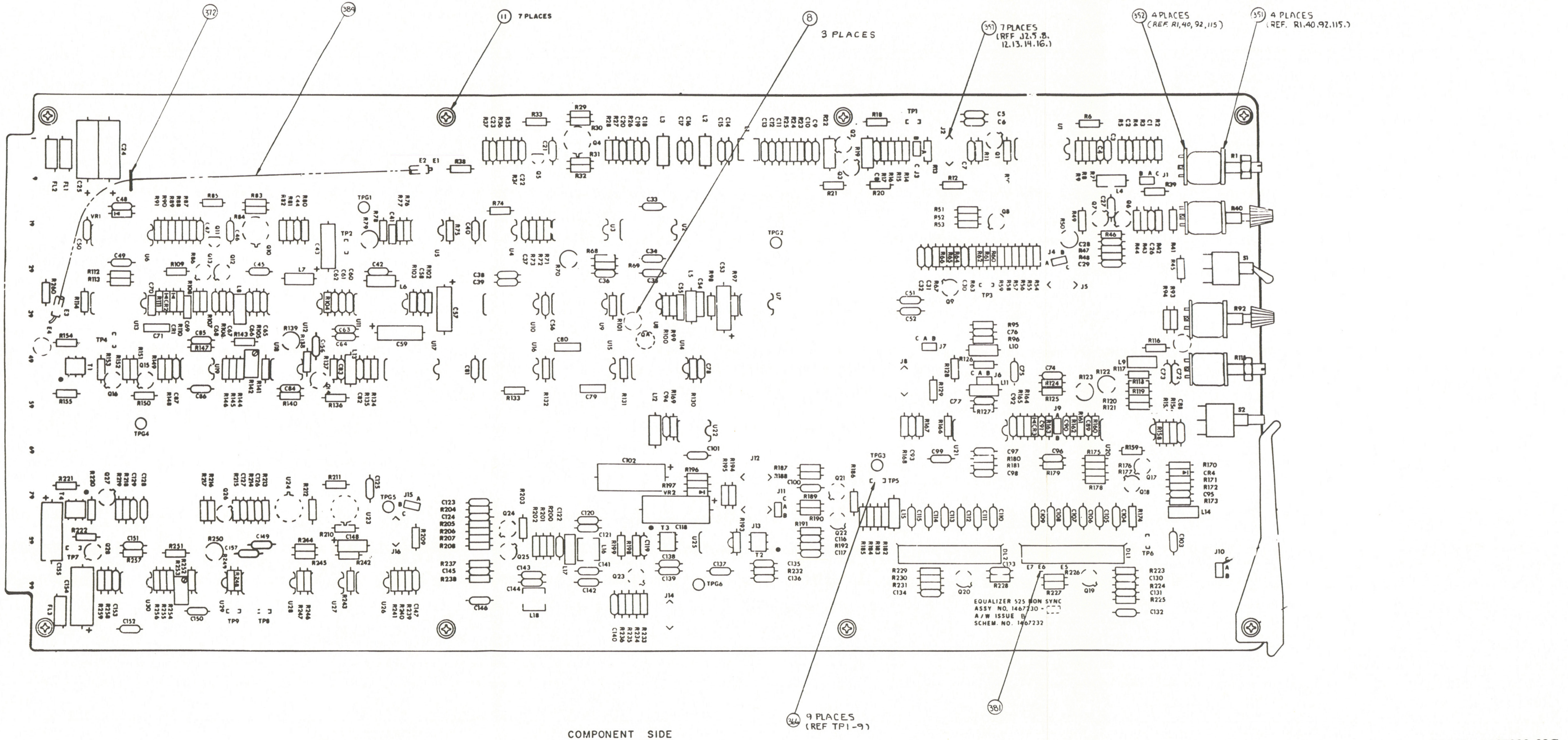
AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467230 SHEET 9 OF 10	REV C

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
353	120-967	SWITCH, TOGGLE, SPDT	S1	1	1	1
354	119-855	SWITCH, PUSH, SPDT, MOMENTARY	S2	1	1	1
355						
356						
357	139-037	CONNECTOR, SIGNAL CIRCUIT, RECEPT, 1 COAX PIN	J2,5,8,12,13 14,16	7	7	7
358						
359						
360						
361	140-437	JACK, SHORTING, 2 CONTACT	J1,3,4,6,7,9, 10,11,15	9	9	9
362						
363						
364						
365	187-055	TERMINAL, WIREWRAP	REF:J1,3,4,6,7,9, 10,11,15	26	26	26
366	187-259	TERMINAL, PRINTED CIRCUIT	TP1-9	9	9	9
367						
368						
369						
370	230-144	KNOB, ROUND, MARKED	REF:R40,92	2	2	2
371						
372	302-395	STRAP, CABLE, "MOUSETAIL"			1	1
373						
374	560-471	TRANSFORMER, WIDEBAND, T1-1T	T3		1	1
375						
376						
377						
378	570-435	TRANSFORMER, WIDEBAND, T4-1T	T1,2,4	3	3	3
379						
380						
381	615-004	WIRE, BARE, SOLID, #24 AWG	REF:E6,7	A/R	A/R	A/R
382						
383						
384	616-569	CABLE, COAX, 75 OHMS	REF:E1-4	A/R	A/R	A/R

NOTES:

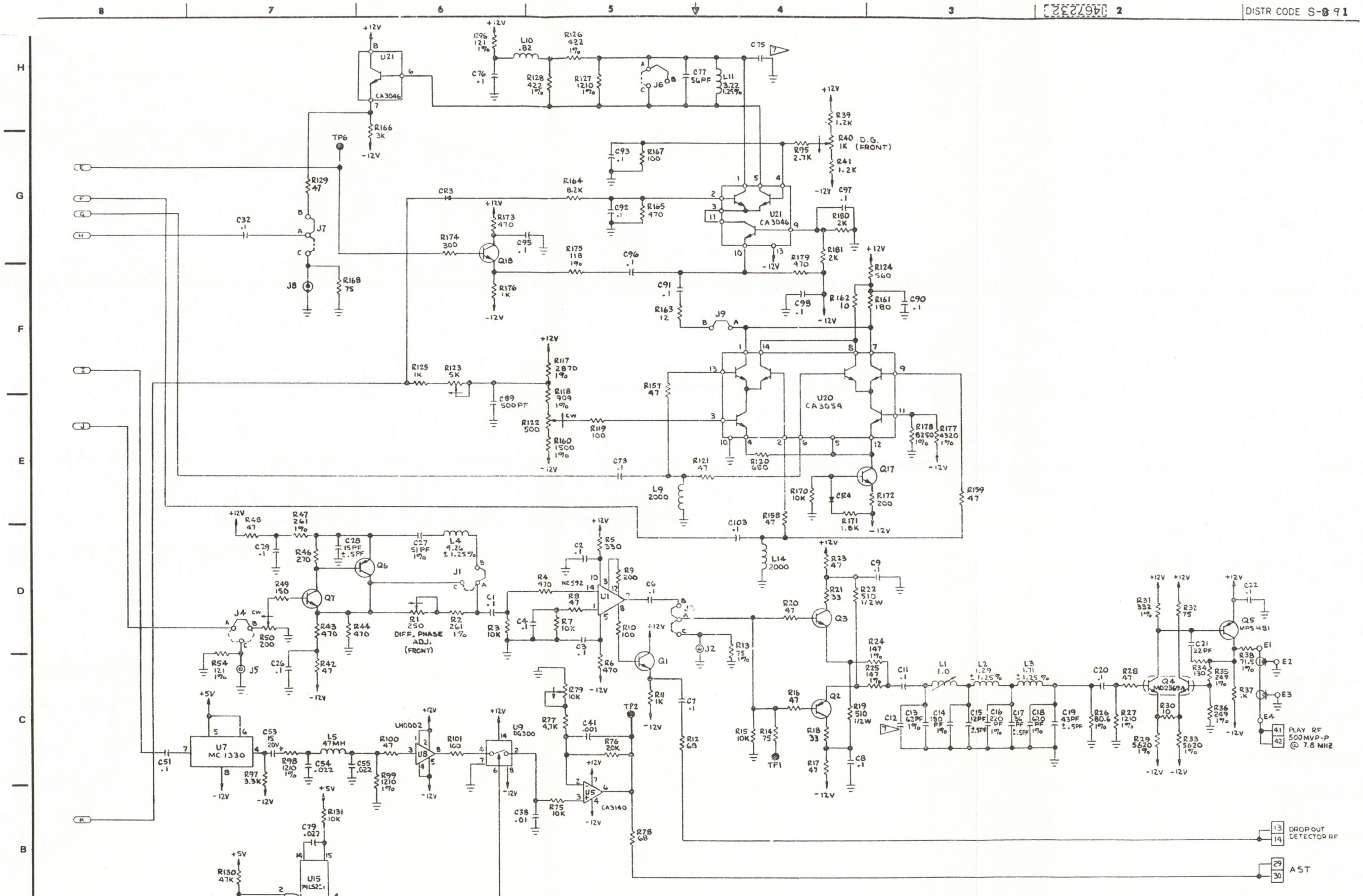
1. STATIC SENSITIVE, SPECIAL HANDLING REQUIRED PER AMPEX STD ME1-1.

LM-1467230



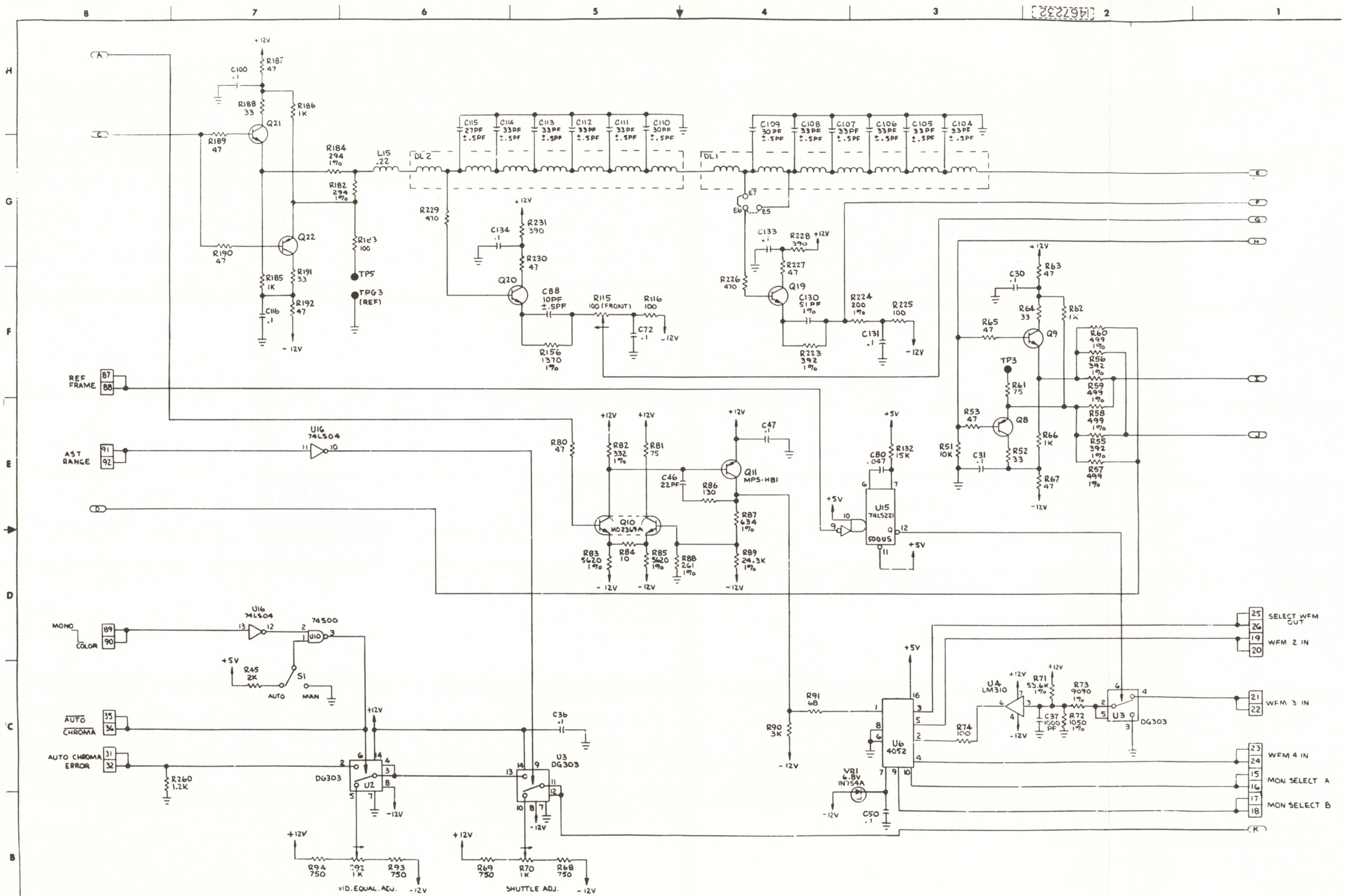
COMPONENT SIDE

Assembly No. 1467230-03C.
Equalizer PWA, A3, Non-Sync, NTSC, PAL-M



REFERENCE DESIGNATION	
LAST USED	NOT USED
C157	
CR4	
E7	
FL3	
J16	
L18	
Q28	
R260	
S2	
T4	
TP9	
TPG6	
U30	
VR2	
DL2	

Schematic No. 1467232A/B.
Equalizer PWA, 525, A3, Non-Sync
(Sheet 1 of 3)



NOTES UNLESS OTHERWISE SPECIFIED.

1. RESISTANCE VALUES ARE IN OHMS. 1/4W, 5%.
2. CAPACITANCE VALUES ARE IN MICROFARADS.
3. INDUCTANCE VALUES ARE IN MICROHENERIES.
4. DIODES ARE AMPEX P/N. 013-689.
5. PNP TRANSISTORS ARE AMPEX P/N 014-505
6. NPN TRANSISTORS ARE AMPEX P/N 014-581
7. FOR FUTURE DESIGN
8. SCHEMATIC REFLECTS ASSY 1467230-03.
9. ALL UNUSED CMOS I.C. INPUTS ARE TIED TO APPROPRIATE LEVELS.
10. STATIC SENSITIVE, SPECIAL HANDLING REQUIRED PER AMPEX STD HEI-1

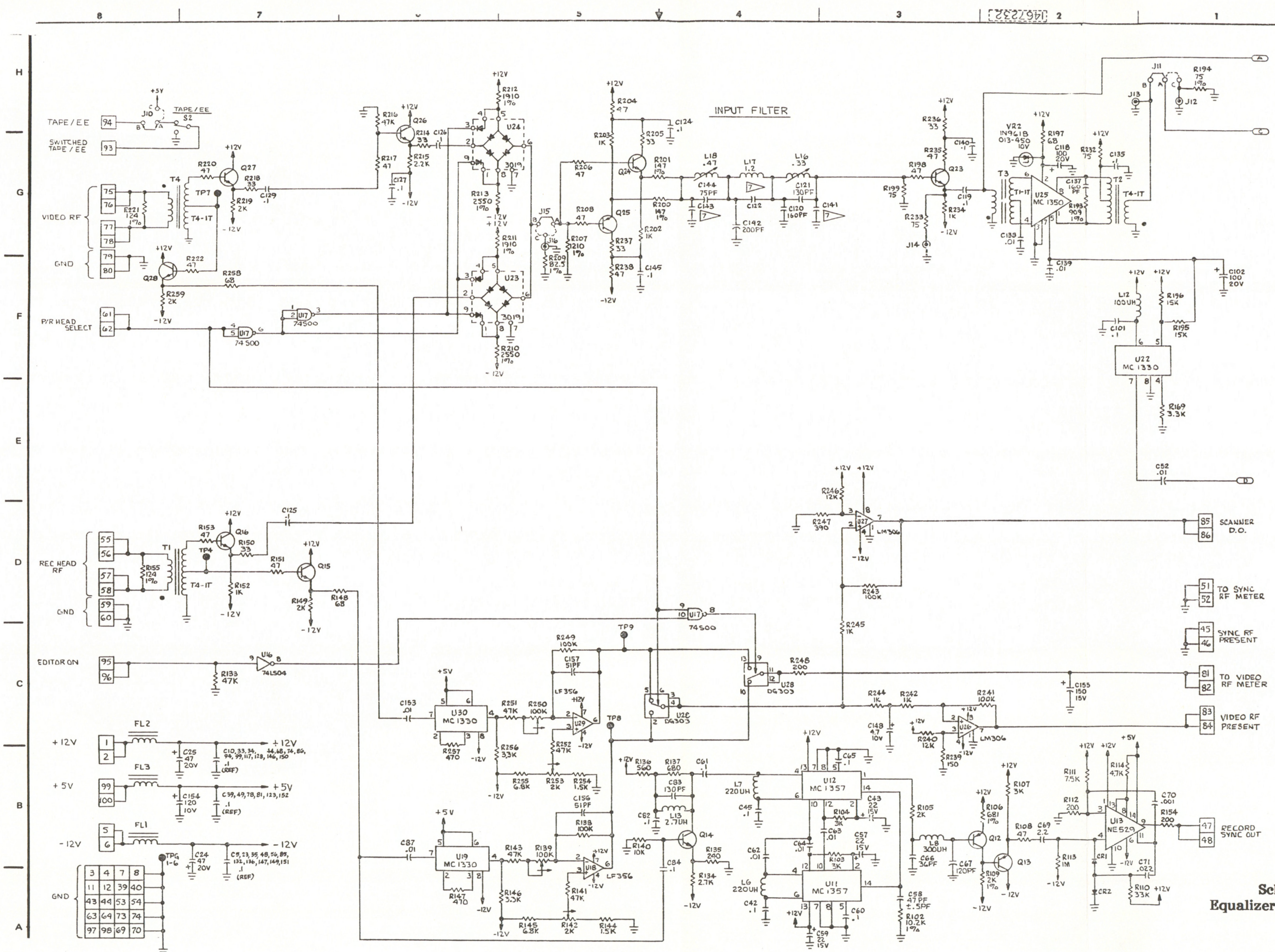
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REF DES	U1	U2,3,28 (10)	U4	U5	U6 (10)	U7,19,22,30	U8	U9 (10)	U10,17	U11,12
AMPEX PN	000-145	590-086	590-448	590-561	590-729	587-163	587-270	590-963	589-837	586-776
VENDOR PN	NE592NB	DG303CJ	LM310P	CA3140E	CD4052BE	MC1330	LH0002CN	DG300CJ	74S00	MC1357
VOLTAGE (PIN)	—	+12V(14)-12V(8)	+12V(7)-12V(4)	+12V(7)-12V(4)	+5V (16)	+5V(5,6)-12V(8)	+12V(1,2)-12V(4,5)	+12V(14)-12V(8)	+5V (14)	+12V (13)
GROUND	—	7	—	—	8	—	—	7	7	7, 8

REF DES	U13	U14 (10)	U15	U16	U18,29	U20	U21	U26,27	U25	U23,24
AMPEX PN	000-146	590-556	589-923	589-814	590-601	590-540	590-721	590-460	587-164	586-255
VENDOR PN	NE529NB	CD4081BE	74LS221	74LS04	LF356	CA3054	CA3046	LM306P	MC1350	CA3019
VOLTAGE (PIN)	+12V(1)-12V(6)+5V(14)	+5V (14)	+5V (16)	+5V (14)	+12V(7)-12V(4)	—	-12V (13)	+12V(8)-12V(4)	—	—
GROUND	10	7	8	7	—	10	—	1	3,7	—

Schematic No. 1467232A/B.
Equalizer PWA, 525, A3, Non-Sync
(Sheet 2 of 3)

Ampex 1809642-04



Schematic No. 1467232A/B.
Equalizer PWA, 525, A3, Non-Sync
(Sheet 3 of 3)

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01									
1													
2													
3	1467235	SCHEMATIC		(-)									
4													
5	1400004-01	EJECTOR, PWB		1									
6	1467008-AF	LABEL		1									
7	1467009-01	SHIELD		1									
8	250-155	BUMPER, PAD SYNTHETIC RUBBER		3									
9	283-105	SPACER, PLAIN, .140 ID X .250 OD X .125 LG		1									
10	471-063	SCREW, MACH, PAN HD., XREC, #4-40 X .438 LG		1									
11	474-500	SCREW, MACH, PAN HD., XREC, #4-40 X .312 LG		7									
12	502-002	WASHER, LOCK, #4		1									
13	506-011	WASHER, BOWED		1									
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													
26	1374388-CA	INDUCTOR, VARIABLE, 1.0uH	L1	1									
27	1374388-CC	INDUCTOR, VARIABLE, .33uH	L16	1									
28	1374388-CE	INDUCTOR, VARIABLE, .47uH	L18	1									
29													
30													
31													
32													
33													
34	1208744-01	DELAY LINE	DL1,2	2									
35													
36													
37													

LM-1467233

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO. 92739	LIST OF MATERIALS	LM-1467233 SHEET 2 OF 10	REV A

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
38	064-316	CAPACITOR, CER., MONO, 2.2uF, 50V, 20%	C69	1
39	064-652	CAPACITOR, CER., MONO, .01uF, 50V, 20%	C38,52,62,63,64, 87,138,139,153	9
40				
41				
42	064-653	CAPACITOR, CER., MONO, 0.1uF, 50V, 20%	C1-11,20,22,23,26, 29-36,39,40,42,44,45,	85
43		47-51,56,60,61,65,68,72,73,74,76,78, 81,82,84,85,86,90-101,103,116,117,		
44		119,123-129,131-136,140,145,146,147, 149-152		
45				
46				
47				
48				
49	064-658	CAPACITOR, CER., MONO, 5pF, 50V, ±.5pF	C28	1
50	064-666	75pF, 100V, 5%	C144	1
51				
52				
53	064-671	22pF, 100V, 5%	C21,46	2
54	064-714	51pF, 100V, 5%	C156,157	2
55	064-741	51pF, 50V, 1%	C27,77,130	3
56				
57	064-677	620pF, 50V, 1%	C18	1
58	064-682	220pF, 50V, 1%	C14	1
59	064-694	200pF, 100V, 5%	C142	1
60	064-688	10pF, 50V, ±.5pF	C15,88	2
61	064-696	180pF, 50V, 1%	C19	1
62	064-709	120pF, 100V, 5%	C67	1
63	064-718	160pF, 100V, 5%	C120,137	2
64	064-704	1000pF, 50V, 5%	C37	1
65	064-721	130pF, 100V, 5%	C83,121	2
66	064-739	33pF, 50V, ±.5pF	C104-107,109, 111-114	9
67				
68	064-735	24pF, 50V, ±.5pF	C110	1
69	064-726	270pF, 50V, 1%	C16	1
70	064-740	62pF, 50V, 1%	C13	1
71				
72				
73	064-781	27pF, 50V, ±.5pF	C108,115	2
74	064-785	47pF, 50V, ±.5pF	C58	1
75				
76	064-786	12pF, 50V, ±.5pF	C12	1
77	064-788	36pF, 50V, ±.5pF	C17,66	2
78	064-791	CAPACITOR, CER., MONO, 500pF, 50V, 5%	C89	1
79				
80				
81				
82				

LM-1467233

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA | CODE IDENT NO. 92739 | LIST OF MATERIALS | LM-1467233 SHEET 3 OF 10 | REV A

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01									
83	069-090	CAPACITOR, POLYESTER, .001uF, 50V, 5%	C41,70	2									
84													
85													
86	069-097	CAPACITOR, POLYESTER, .022uF, 50V, 5%	C54,55,71,79	4									
87													
88													
89	069-092	CAPACITOR, POLYESTER, .047uF, 50V, 5%	C80	1									
90													
91													
92													
93													
94	037-186	CAPACITOR, TANT., 120uF, 10V, 10%	C154	1									
95	037-472	↕ 4.7uF, 10V, 10%	C148	1									
96	037-620	100uF, 20V, 10%	C102,118	2									
97	037-507	150uF, 15V, 10%	C155	1									
98	037-746	47uF, 20V, 10%	C24,25	2									
99	037-985	15uF, 20V, 10%	C53	1									
100	037-991	CAPACITOR, TANT., 22uF, 15V, 10%	C43,57,59	3									
101													
102													
103													
104													
105													
106	013-224	DIODE, ZENER, IN754A, 6.8V	VR1	1									
107													
108	013-450	DIODE, ZENER, IN961B, 10V	VR2	1									
109													
110	013-689	DIODE, CD6016	CR1-4	4									
111													
112													
113													
114													
115	051-770	FERRITE-CHOKE	FL1,2,3	3									
116													
117													
118													
119													
120	068-158	INDUCTOR, FIXED, 3.22uH, 1.25%	L11	1									
121	051-599	↕ .82uH, 5%	L10	1									
122													
123													
124													
125	540-003	220uH, 5%	L6,7	2									
126	540-006	100uH, 5%	L12	1									
127	540-050	INDUCTOR, FIXED, 47MH, 10%	L5	1									

LM-1467233

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
128	540-056	INDUCTOR, FIXED, 2.7uH, 5%	L13	1
129	068-039	INDUCTOR, FIXED, .22uH, 5%	L15	1
130	068-327	INDUCTOR, FIXED, 300uH, 5%	L8	1
131	068-331	INDUCTOR, FIXED, 1.2uH, 10%	L17	1
132	068-333	INDUCTOR, FIXED, 2000uH, 5%	L9,14	2
133	068-064	INDUCTOR, FIXED, 300uH, 5%	L8	-
134	068-087	1.2uH, 10%	L17	-
135	068-091	2000uH, 5%	L9,14	-
136				
137	068-284	1.51uH, 1.25%	L2	1
138	068-285	2.10uH, 1.25%	L3	1
139	068-286	INDUCTOR, FIXED, 5.30uH, 1.25%	L4	1
140				
141	586-255	INTEGRATED CIRCUIT, CA3019	U23,24	2
142	590-540	CA3054	U20	1
143				
144				
145				
146	000-145	NE592	U1	1
147	587-270	LH0002CN	U8	1
148				
149				
150				
151	000-146	NE529	U13	1
152	589-814	74LS04	U16	1
153	589-837	74S00	U10,17	2
154				
155				
156	589-934	74LS221	U15	1
157				
158				
159				
160	590-086	DG303CJ (3)	U2,3,28	3
161	590-448	LM310P	U4	1
162	590-460	LM306P	U26,27	2
163				
164	586-776	MC1357	U11,12	2
165	587-164	MC1350	U25	1
166	590-556	CD4081BE (3)	U14	1
167				
168	590-561	CA3140E	U5	1
169	590-601	LF356	U18,29	2
170	587-163	MC1330	U7,19,22,30	4
171				
172	590-721	INTEGRATED CIRCUIT, CA3046	U21	1

LM-1467233

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM- 1467233 SHEET 5 OF 10	REV A

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
173	590-729	INTEGRATED CIRCUIT, CD4052BE ▷3	U6	1
174				
175				
176	590-963	INTEGRATED CIRCUIT, DG300CJ ▷3	U9	1
177				
178				
179				
180				
181	066-662	RESISTOR, C.F., 200 OHMS, .25W, 5%	R9,112,154, 172,248	5
182				
183	066-665	1K	R11,37,62,66,125, 152,176,185,186,	15
184			202,203,234,242, 244,245	
185				
186	066-666	2.7K	R95,134	2
187				
188	066-667	3K	R90,103,104, 107,166	5
189	066-668	4.7K	R77,114	2
190	066-669	8.2K	R164	1
191				
192	066-673	1.0M	R113	1
193	066-675	1.8K	R171	1
194	066-677	68	R12,78,91,148, 197,258	6
195				
196	066-689	2.2K	R215	1
197	066-711	7.5K	R111	1
198	066-715	1.2K	R39,41,260	3
199				
200	066-717	47K	R130,133,141,143, 216,251,252	7
201				
202				
203	066-720	3.3K	R97,146,169, 256	4
204				
205	066-810	10	R30,84,162	3
206	066-812	100	R10,74,101,116, 119,167,183,225	8
207				
208	066-813	150	R49,239	2
209	066-814	270	R46	1
210				
211	066-815	300	R174	1
212	066-816	390	R228,231,247	3
213				
214				
215	066-818	470	R4,6,43,44,147,165,173, 179,226,229,257	11
216				
217	066-820	RESISTOR, C.F., 750 OHMS, .25W, 5%	R68,69,93,94	4

LM-1467233

AMPEX Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO. 92739	LIST OF MATERIALS	LM-1467233 SHEET 6 OF 10	REV A

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01
218				
219	066-824	RESISTOR, C.F., 1.5K OHMS, .25W. 5%	R144,254	2
220	066-826	2K	R45,105,149,180, 181,219,259	7
221				
222				
223	066-829	6.8K	R145,255	2
224	066-830	10K	R3,7,15,51,75,131, 140,170	8
225				
226	066-834	33	R18,21,52,64,150, 188,191,205,214, 218,236,237	12
227				
228				
229	066-837	130	R34,86	2
230	066-838	330	R5	1
231	066-839	560	R124,136	2
232				
233	066-840	680	R120,137	2
234	066-847	33K	R110	1
235	066-849	100K	R138,241,243, 249	4
236				
237	066-856	15K	'32,195,196	3
238	066-859	240	Ri35	1
239				
240				
241	066-865	12K	R240,246	2
242	066-873	20K	R76	1
243	066-938	47	R8,16,17,20,23,28,42,48, 53,63,65,67,80,100,108,	37
244			121,129,151,153,157,158, 159,187,189,190,192,198,	
245			204,206,208,217,220,222, 227,230,235,238	
246				
247				
248				
249				
250				
251				
252	076-004	180	R161	1
253	076-036	12	R163	1
254	076-045	RESISTOR, C.F., 75 OHMS, .25W, 5%	R14,32,61,81,168, 199,232,233	8
255				
256				
257				
258				
259				
260	041-404	RESISTOR, FIXED, COMP, 510 OHMS, .5W, 5%	R19,22	2
261				
262				

LM-1467233

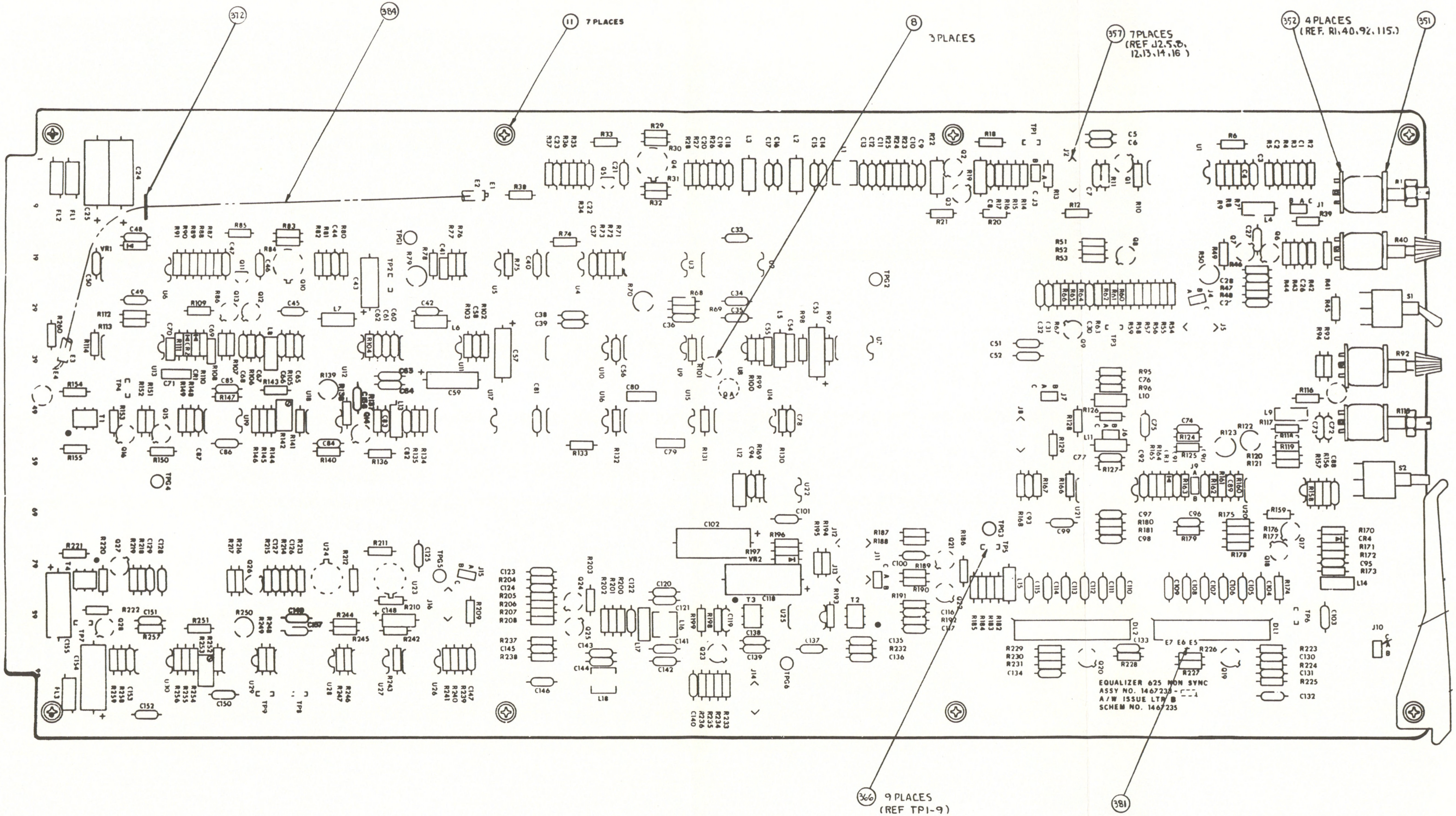
ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
263	042-378	RESISTOR, M.F., 8.25K OHMS, .125W, 1%	R178	1
264				
265				
266				
267	062-625	1.21K	R27,98,99,207	4
268	062-643	2K	R109	1
269	062-833	71.5	R38	1
270	062-684	243	R2	1
271	062-836	75	R13,194	2
272	062-839	80.6	R26	1
273				
274	062-840	82.5	R209	1
275	062-853	118	R175	1
276	062-855	121	R54,96	2
277				
278	062-856	124	R155,221	2
279	062-863	147	R24,25,200, 201	4
280	062-874	200	R224	1
281				
282	062-880	249	R35,36	2
283	062-881	261	R47,88	2
284	062-887	332	R31,82	2
285				
286	062-893	392	R55,56,223	3
287	062-897	422	R126,128	2
288	062-902	499	R57-60	4
289	062-945	2.43K	R127	1
290	062-911	634	R87	1
291	062-913	681	R106	1
292	062-922	909	R118,193	2
293	062-925	1.05K	R72	1
294	062-932	1.5K	R160	1
295	062-948	2.55K	R210,213	2
296	062-952	2.87K	R117	1
297	062-971	5.49K	R156	1
298	062-963	4.32K	R177	1
299	062-972	5.62K	R29,33,83,85	4
300	062-982	9.09K	R73	1
301				
302	066-387	53.6K	R71	1
303	066-004	24.3K	R89	1
304				
305	066-454	1.91K	R211,212	2
306				
307	066-601	RESISTOR, M.F., 10.2K OHMS, .125W, 1%	R102	1

LM-1467233

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
308	066-921	RESISTOR, M.F., 294 OHMS, .125W, 1%	R182,184	2
309				
310				
311				
312				
313				
314	044-891	RESISTOR, VARIABLE, 200 OHMS, .5W, 20%	R50	1
315	044-927	500	R122	1
316				
317	044-944	5K	R123	1
318				
319				
320	058-004	1K	R70	1
321	058-251	100K 20%	R139,250	2
322	058-473	1K 10%	R40,92	2
323				
324	044-259	250 10%	R1	1
325	044-272	100 10%	R115	1
326	058-611	10K 20%	R79	1
327				
328	058-651	RESISTOR, VARIABLE, 2K OHMS, .5W, 10%	R142,253	2
329				
330				
331				
332				
333				
334	014-505	TRANSISTOR, 2N3251	Q2,6,8,12,13, 22,25	7
335	014-581	TRANSISTOR, 2N2369A	Q1,3,7,9,14-21,23, 24,26,27,28	17
336				
337				
338				
339				
340				
341				
342	014-852	TRANSISTOR, DUAL, MD2369A	Q4,10	2
343				
344				
345				
346	580-840	TRANSISTOR, MPSH81	Q5,11	2
347				
348				
349				
350				
351	075-273	RESISTOR PART, MTG PLATE	REF:R1,40,92,115	4
352	075-274	RESISTOR PART, WIRING BOARD	REF:R1,40,92,115	4

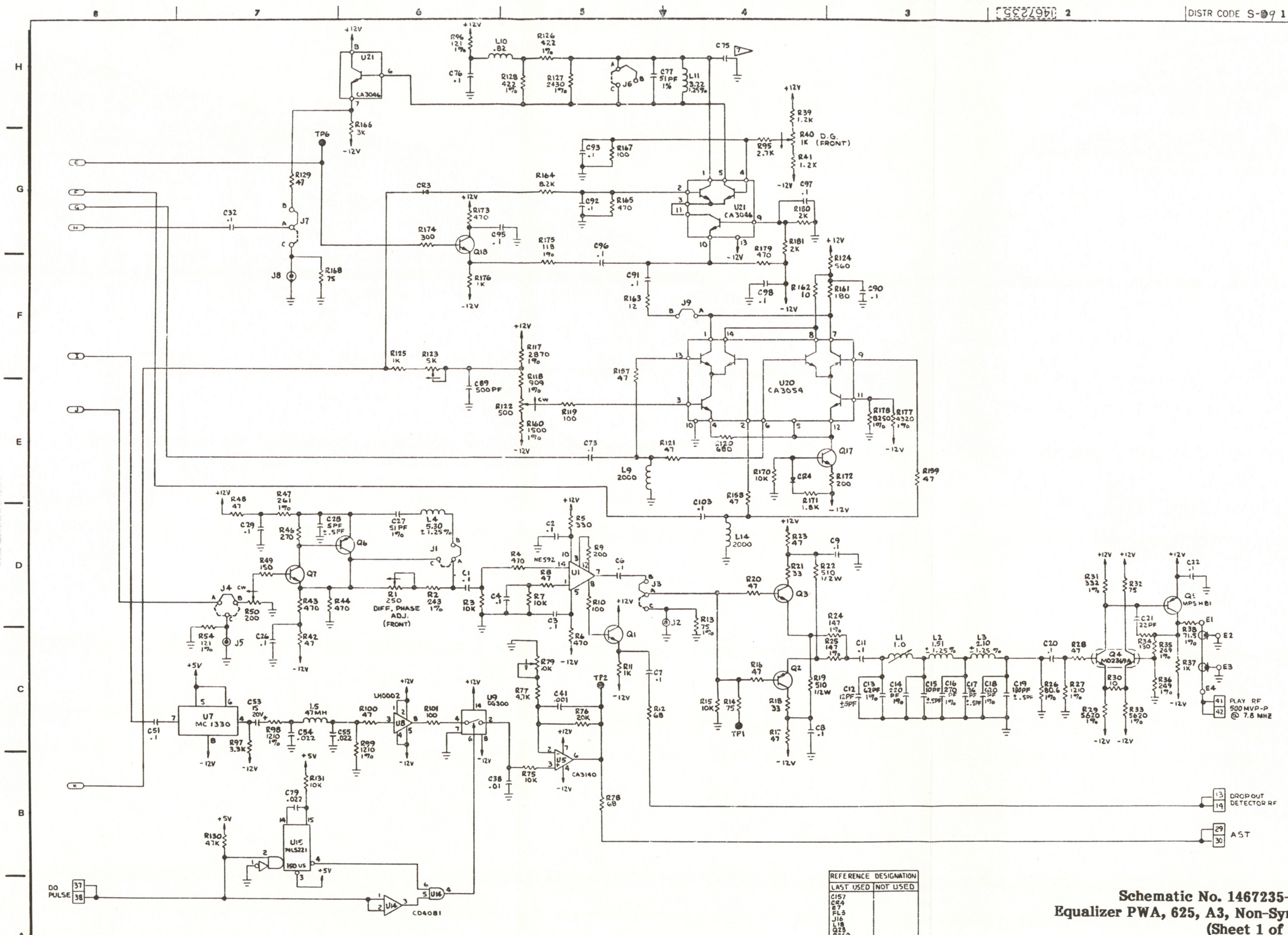
ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
353	120-967	SWITCH, TOGGLE, SPDT	S1	1
354	119-855	SWITCH, PUSH, SPDT, MOMENTARY	S2	1
355				
356				
357	139-037	CONNECTOR, SIGNAL CIRCUIT, RECEPT, 1 COAX PIN	J2,5,8,12, 13,14,16	7
358				
359				
360				
361	140-437	JACK, SHORTING, 2 CONTACT	J1,3,4,6,7,9,10, 11,15	9
362				
363				
364				
365	187-055	TERMINAL, WIREWRAP	REF:J1,3,4,6,7,9, 10,11,15	26
366	187-259	TERMINAL, PRINTED CIRCUIT	TP1-9	9
367				
368				
369				
370	230-144	KNOB, ROUND, MARKED	REF:R40,92	2
371				
372	302-395	STRAP, CABLE, "MOUSETAIL"		1
373				
374	560-471	TRANSFORMER, WIDEBAND, T1-IT	T3	1
375				
376				
377				
378	570-435	TRANSFORMER. WIDEBAND, T4-IT	T1,2,4	3
379				
380				
381	615-004	WIRE, BARE, SOLID, #24 AWG	REF:E6,7	A/R
382				
383				
384	616-569	CABLE, COAX, 75 OHMS	REF:E1-4	A/R

LM-1467233



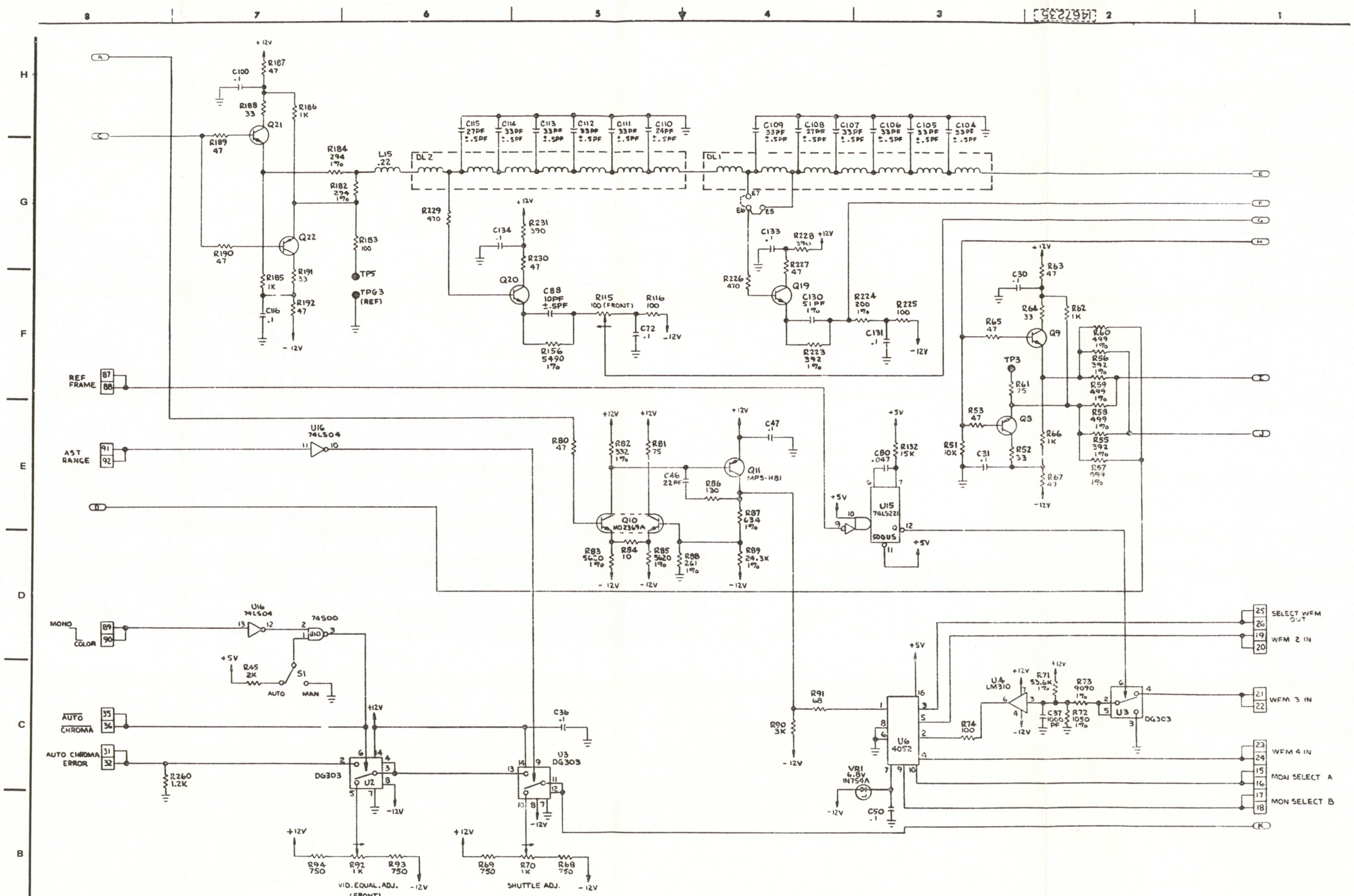
COMPONENT SIDE

Assembly No. 1467233-01A.
Equalizer PWA, A3, Non-Sync, PAL/SECAM



REFERENCE DESIGNATION	
LAST USED	NOT USED
C157	
CR4	
E7	
FL3	
J16	
L18	
Q23	
R260	
S2	
T4	
TP9	
TPG6	
U30	
VR2	
DL2	

Schematic No. 1467235—.
Equalizer PWA, 625, A3, Non-Sync
(Sheet 1 of 3)



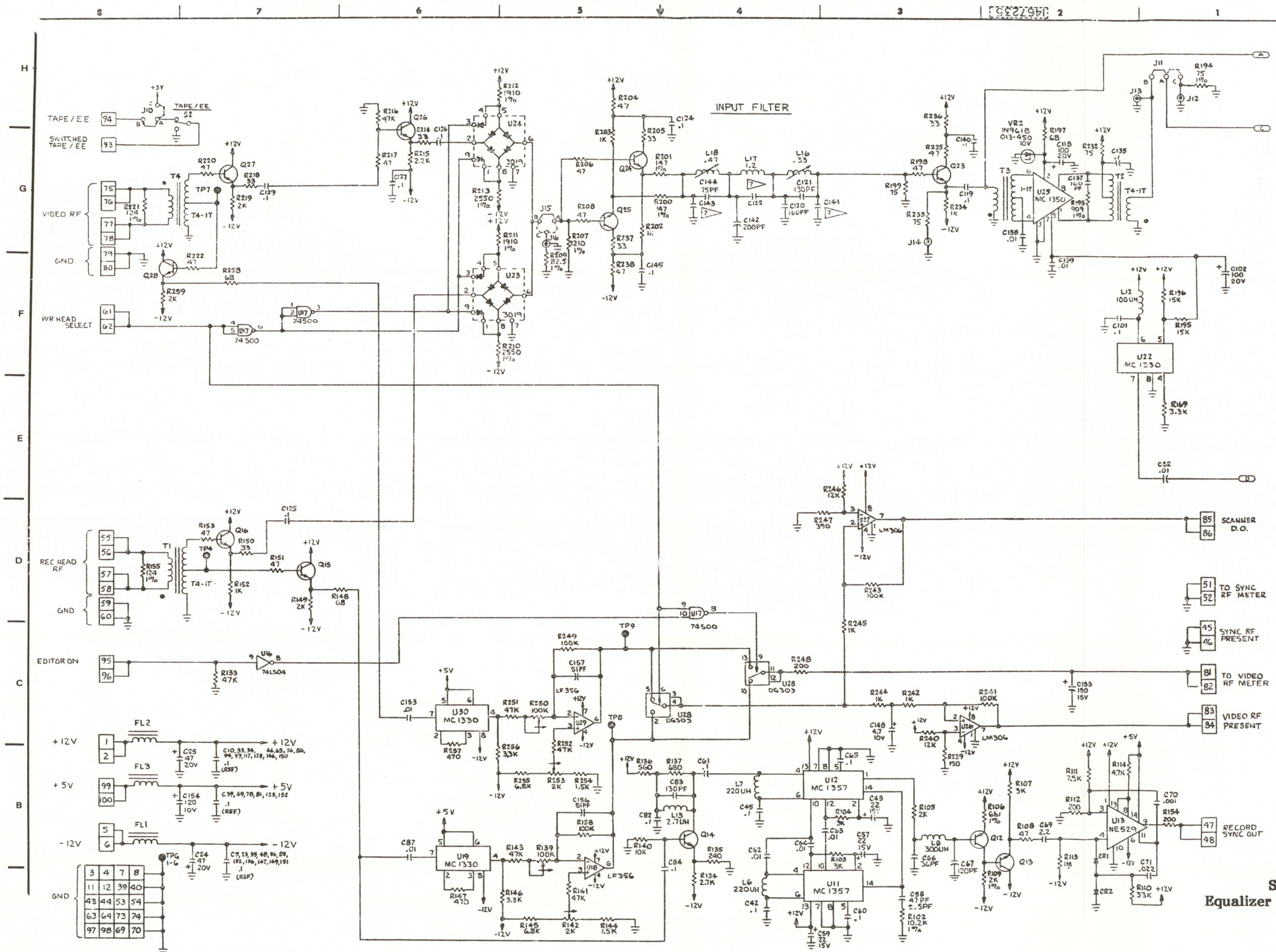
NOTES: UNLESS OTHERWISE SPECIFIED.

1. RESISTANCN VALUES ARE IN OHMS. 1/4W, 5%.
2. CAPACITANCE VALUES ARE IN MICROFARADS.
3. INDUCTANCE VALUES ARE IN MICROHENERIES.
4. DIODES ARE AMPEX P/N. 013-689.
5. PNP TRANSISTORS ARE AMPEX P/N 014-505
6. NPN TRANSISTORS ARE AMPEX P/N 014-581
7. ▷ FOR FUTURE DESIGN
8. SCHEMATIC REFLECTS ASSY 1467233-01.
9. ALL UNUSED CMOS I.C. INPUTS ARE TIED TO APPROPRIATE LEVELS.

IC LIST

REF DES	U1	U2,3,28	U4	U5	U6	U7,19,22,30	U8	U9	U10,17	U11,12
AMPEX PN	000-145	590-086	590-448	590-561	590-729	587-163	587-270	590-963	589-837	586-776
VENDOR PN	NE592NB	DG303CJ	LM310P	CA3140E	CD4052BE	MC1330	LH0002CN	DG300CJ	74S00	MC1357
VOLTAGE (PIN)	—	+12V(14)-12V(8)	+12V(7)-12V(4)	+12V(7)-12V(4)	+5V(16)	+5V(5,6)-12V(8)	+12V(1,2)-12V(4,5)	+12V(14)-12V(8)	+5V(14)	+12V(13)
GROUND	—	7	—	—	8	—	—	7	7	7, 8
REF DES	U13	U14	U15	U16	U18,29	U20	U21	U26,27	U25	U23,24
AMPEX PN	000-146	590-556	589-923	589-814	590-601	590-540	590-721	590-460	587-164	586-255
VENDOR PN	NE529NB	CD4081BE	74LS221	74LS04	LF356	CA3054	CA3046	LM306P	MC1350	CA3019
VOLTAGE (PIN)	[illegible]	+5V(14)	+5V(16)	+5V(14)	+12V(7)-12V(4)	—	-12V(13)	+12V(8)-12V(4)	—	—
GROUND	10	7	8	7	—	10	—	1	3,7	—

Schematic No. 1467235—. Equalizer PWA, 625, A3, Non-Sync (Sheet 2 of 3)



Schematic No. 1467235—.
Equalizer PWA, 625, A3, Non-Sync
(Sheet 3 of 3)

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
1						
2						
3	1467042	SCHEMATIC		B	C	D
4						
5	1400004-01	EJECTOR, PWB		1	1	1
6	1467008-AJ	LABEL		1	1	1
7	1467009-01	SHIELD		1	1	1
8	250-155	BUMPER PAD, SYNTHETIC RUBBER		3	3	3
9	263-105	SPACER, PLAIN, .140 ID X .250 OD X .125 LG		1	1	1
10	471-063	SCREW, MACH, PAN HD, XREC DR, 4-40 X .438 LG		1	1	1
11	474-500	SCREW, MACH, PAN HD, XREC DR, 4-40 X .312 LG		7	7	7
12	502-002	WASHER, LOCK, HELICAL SPRING, #4		1	1	1
13	506-011	WASHER, BOWED		1	1	1
14						
15						
16						
17						
18	1467450-01	PROM, TMS2516, (589-715) ▷1	U25	1	1	1
19						
20						
21	064-316	CAPACITOR, CER., MONO, 2.2uF, 50V, 20%	C4	1	1	1
22						
23	064-651	CAPACITOR, CER. MONO, 220pF, 100V, 5%	C33	1	1	1
24	064-652	.01uF, 50V, 20%	C30	1	1	1
25	064-653	0.1uF, 50V, 20%	C1-3,8-10, 12,13,15-17,	24	24	24
26			19,22-24,27,31,34-36,38,41-43			
27						
28						
29	064-655	47pF, 100V, 5%	C40	1	1	1
30	064-662	30pF, 100V, 5%	C21	1	1	1
31	064-713	36pF, 100V, 5%	C20	1	1	1
32						
33	064-664	62pF, 100V, 5%	C39	1	1	1
34	064-694	200pF, 100V, 5%	C26,37	2	2	2
35	064-762	CAPACITOR, CER. MONO, 100pF, 100V, 5%	C25,29,32,45	4	4	4
36	064-819	CAPACITOR, CER. MONO, 1000pF, 50V, 1%	C18	1	1	1
37						

LM-1467040

AMPEX | Ampex Corporation REDWOOD CITY CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467040 SHEET 2	REV F

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
38	069-104	CAPACITOR, POLYESTER, .0056uF, 50V, 5%	C28		1	1
39	069-113	CAPACITOR, POLYESTER, 0.1uF, 50V, 5%	C46,47	2	2	2
40						
41						
42						
43						
44						
45						
46						
47	037-186	CAPACITOR, TANT, 120uF, 10V, 10%	C44	1	1	1
48	037-746	47uF, 20V, 10%	C7,14	2	2	2
49						
50						
51						
52	067-013	CAPACITOR, TANT, 20uF, 15V, 20% NON-POL.	C5,6	2	2	2
53						
54						
55						
56						
57	051-770	FERRITE-CHOKE	FL1-3	3	3	3
58						
59						
60						
61						
62	587-958	INTEGRATED CIRCUIT, CD4002BE ▷1	U27	1	1	1
63						
64	589-592	DG301CJ	U7	1	1	1
65						
66	590-472	CD40109BE	U2,9,16	3	3	3
67	590-484	CD40174BE	U23,24	2	2	2
68	590-491	CD4068BE ▷1	U39	1	1	1
69	590-486	MC14538	U41	1	1	1
70	590-502	TL072CP	U29	1	1	1
71	590-506	CD4011BE ▷1	U30,37	2	2	2
72	590-528	CD4001BE ▷1	U20,28,42	3	3	3
73						
74	590-542	LM311P	U14	1	1	1
75	590-546	CD4013BE ▷1	U13,26,34,40	4	4	4
76	590-556	CD4081BE	U5,31	2	2	2
77						
78	590-571	CD4029BE	U1,4,8,11, 15,18,36	7	7	7
79	590-5/2	74C221	U6,19,32,33, 35	5	5	5
80	590-593	CD4071BE	U12	1	1	1
81						
82	590-/89	INTEGRATED CIRCUIT, CD4049UBE ▷1	U21,38	2	2	2

LM-1467040

AMPEX | Ampex Corporation, Redwood City, California | CODE IDENT NO **92739** | LIST OF MATERIALS | LM-1467040 SHEET 3 | REV F

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
83	002-054	INTEGRATED CIRCUIT, DAC1220 ▷1	U22	1	1	1
84						
85						
86	000-029	INTEGRATED CIRCUIT, NMC6514 ▷1	U3,10,17	3	3	3
87						
88						
89						
90						
91	066-652	RESISTOR, C.F., 470K OHMS, .25W, 5%	R2	1	1	1
92	066-665	1K	R4		1	1
93	066-668	4.7K	R39,40	2	2	2
94						
95	066-717	47K	R3,6-8,16-19,27,32,35,37,41-45	17	17	17
96						
97						
98	066-820	750	R9	1	1	1
99	066-826	2K	R30	1	1	1
100						
101						
102	066-830	10K	R5,14,20-26,28,38	11	11	11
103	066-842	5.1K	R13,31	3	3	2
104						
105						
106	066-853	200K	R36,48	1	1	2
107	066-873	RESISTOR, C.F., 20K OHMS, .25W, 5%	R33	1	1	1
108						
109						
110						
111						
112	066-160	RESISTOR, M.F., 6.04K OHMS, .125W, 1%	R15	1	1	1
113	076-364	RESISTOR, M.F., 261K OHMS, .125W, 1%	R46,47	2	2	2
114						
115						
116	058-469	RESISTOR, VARIABLE, 200K OHMS, .5W, 10%	R34	1	1	1
117	058-610	RESISTOR, VARIABLE, 20K OHMS, .5W, 20%	R29	1	1	1
118						
119						
120						
121						
122						
123	119-577	SWITCH, THUMBWHEEL, 1 MODULE, 16 POS	S2	1		1
124	140-437	CONNECTOR, SIG. CKT, PLUG, RECT, 2 SOCKET	J1	1		1
125	120-967	SWITCH, TOGGLE, SPDT, PC MTG.	S1	1		1
126	187-055	TERMINAL, WIREWRAP	REF:J1-A,B,C	3	3	3
127	187-259	TERMINAL PC, TEST POINT	TP1-4	4	4	4

LM-1467040

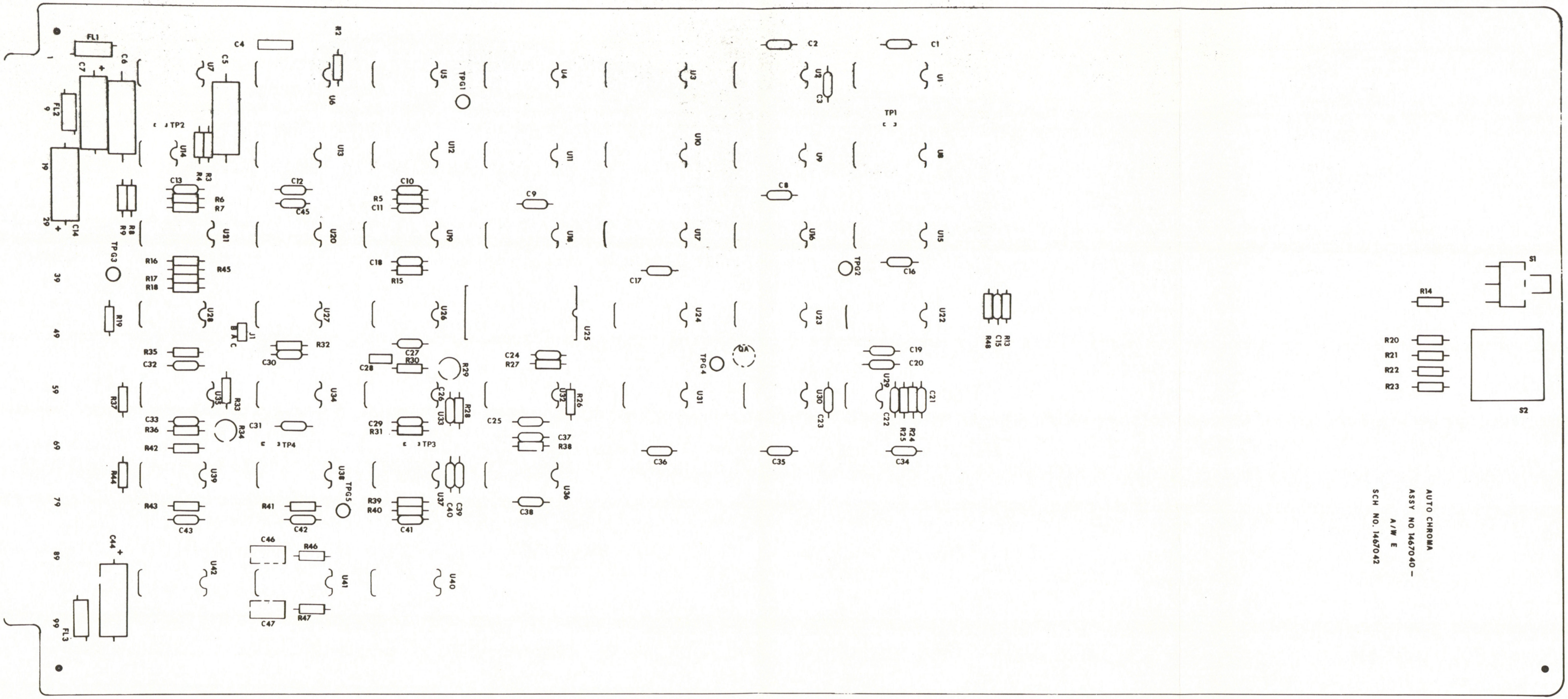
AMPEX Ampex Corporation REDWOOD CITY CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467040 SHEET 4	REV F

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
128	582-159	SOCKET, INTEGRATED CIRCUIT, 24 PIN	REF:U25	1	1	1

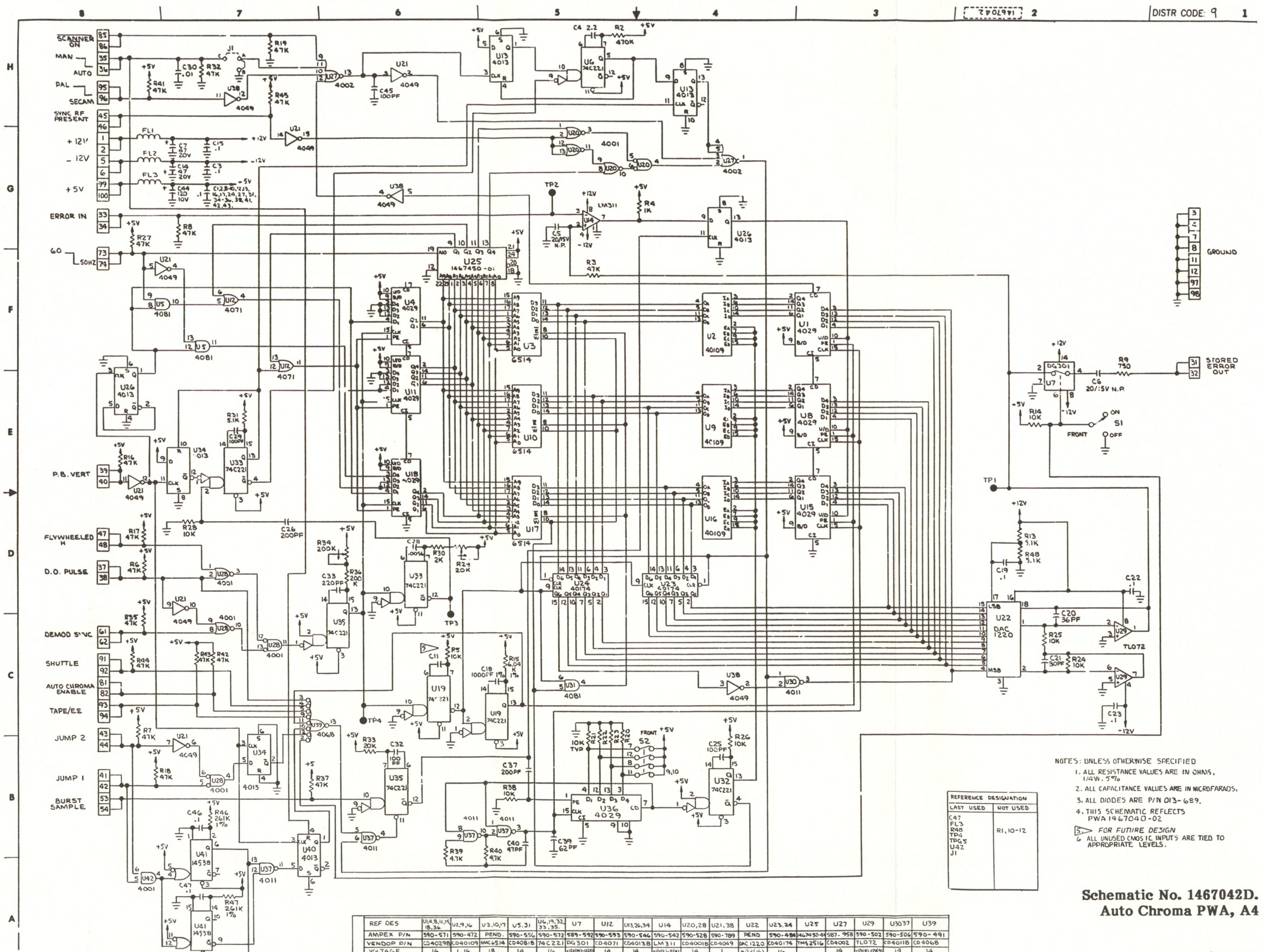
NOTES:

1 STATIC SENSITIVE, SPECIAL HANDLING REQUIRED PER AMPEX STD HE1-1.

LM-1467040



Assembly No. 1467040-03F.
Auto Chroma PWA, A4, (Accessory)



NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL RESISTANCE VALUES ARE IN OHMS, 1/4W, 5%
2. ALL CAPACITANCE VALUES ARE IN MICROFARADS.
3. ALL DIODES ARE P/N 013-689.
4. THIS SCHEMATIC REFLECTS PWA 1467040-02
5. FOR FUTURE DESIGN
6. ALL UNUSED CMOS IC INPUTS ARE TIED TO APPROPRIATE LEVELS.

REFERENCE DESIGNATION	
LAST USED	NOT USED
C47 FL3 R48 TP4 TPG5 U42 J1	R1, 10-12

Schematic No. 1467042D.
Auto Chroma PWA, A4

REF DES	U1,4,8,11,15, 18,36.	U2,9,16	U3,10,17	U5,31	U6,19,32, 33,35.	U7	U12	U13,26,34	U14	U20,28	U21,38	U22	U23,24	U25	U27	U29	U3037	U39
AMPEX P/N	590-571	590-472	PEND.	590-556	590-572	589-592	590-593	590-546	590-542	590-528	590-789	PEND	590-484	1467450-01	587-958	590-502	590-506	590-491
VENDOP P/N	CD4029B	CD40109	NMC6514	CD4081B	74C221	DG301	CD4071	CD4013B	LM311	CD4001B	CD4049	DAC 1220	CD40174	TMS2516	CD4002	TL072	CD4011B	CD4068
VOLTAGE	16	1,16	18	14	16	+12V(14)-12(8)	14	14	+12V(8)-12(4)	14	1	+12V(16)	16		14	+12V(8)-12V(4)	14	14
GND	8	8	9	7	8	7	7	7	1	7	8	3	8		7		7	7

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
1						
2						
3	1467052	SCHEMATIC		REF	B	C
4						
5	1400004-01	EJECTOR, PWB		1	1	1
6	1467008-AK	LABEL		1	1	1
7	1467009-01	SHIELD		1	1	1
8	250-155	BUMPER, PAD, SYNTHETIC RUBBER		3	3	3
9	283-105	SPACER, PLAIN, .140 ID X .250 OD X .125 LG		1	1	1
10	471-063	SCREW, MACH, PAN HD, XREC DR, 4-40 X .438 LG		1	1	1
11	474-500	SCREW, MACH, PAN HD, XREC DR, 4-40 X .312 LG REF:U9		7	8	8
12	502-002	WASHER, LOCK #4		1	1	1
13	506-011	WASHER, BOWED		1	1	1
14						
15						
16						
17						
18	1374388-AF	INDUCTOR, VARIABLE, 3.3uH	L3	1	1	1
19						
20						
21	1374388-AH	INDUCTOR, VARIABLE, 4.7uH	L1	1	1	1
22						
23						
24	1374388-AM	INDUCTOR, VARIABLE, 10uH	L2	1	1	1
25						
26	582-434	HEAT SINK	REF: U9	1	1	1
27						
28						
29	064-307	CAPACITOR, CER. MONO, .22uF, 100V, 20%	C84,93	2	2	2
30	064-314	1.0uF, 50V, 20%	C9,12,20,32, 48,65,156, 161,174	9	9	9
31						
32						
33	064-316	2.2uF, 50V, 20%	C40,72,98, 147,159	5	5	5
34						
35	064-319	4.7uF, 50V, 20%	C96,112	2	2	2
36	064-651	CAPACITOR. CER. MONO, 220pF, 100V, 5%	C52,109,170	3	3	3
37						

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ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
38	064-652	CAPACITOR, CER. MONO, .01uF, 50V, 20%	C53,83,137, 138,152,153,	11	11	11
39			155,157,158, 160,162			
40						
41	064-653	CAPACITOR, CER. MONO, 0.1uF, 50V, 20%	C2-5,7,13-15,19,21,24,	61	61	61
42			26,27,33,34,36,41,43,44,46,47,51,56, 57,60,66,69,70,71,73,75,77-79,81,82,			
43			85,87-89,95,113,116,117,121,124, 125,128,133-135,143,144,146,148-			
44			151,166,167,173			
45						
46						
47						
48						
49	064-662	CAPACITOR, CER. MONO, 30pF, 100V, 5%	C6	1	1	1
50		↑ ↑ ↑				
51	064-668	300pF, 100V, 5%	C101	1	1	1
52	064-670	150pF, 100V, 5%	C22	1	1	1
53	064-671	22pF, 100V, 5%	C90,91	2	2	2
54						
55	064-684	100pF, 50V, 1%	C45	1	1	1
56	064-685	200pF, 50V, 1%	C176	1	1	1
57	064-688	10pF, 50V, ±.5pF	C164	1	1	1
58						
59	064-689	110pF, 50V, 1%	C154	1	1	1
60	064-691	1500pF, 50V, 1%	C102	1	1	1
61	064-694	200pF, 100V, 5%	C55,74,110, 120,171	5	5	5
62						
63	064-699	390pF, 50V, 1%	C67	1	1	1
64	064-701	510pF, 50V, 5%	C107,168	2	2	2
65	064-704	1000pF, 50V, 5%	C8,23,38,42, 105,136,142,	8	8	8
66			175			
67						
68	064-708	33pF, 100V, 5%	C165	1	1	1
69	064-709	120pF, 100V, 5%	C141	1	1	1
70	064-711	20pF, 100V, 5%	C18,59,114	3	3	3
71						
72	064-713	36pF, 100V, 5%	C140	1	1	1
73	064-715	82pF, 100V, 5%	C25,58	2	2	2
74	064-720	360pF, 100V, 5%	C86	1	1	1
75						
76	064-721	130pF, 100V, 5%	C111,172	2	2	2
77	064-722	270pF, 100V, 5%	C108,118,169	3	3	3
78	064-724	430pF, 100V, 5%	C37	1	1	1
79						
80	064-734	↓ ↓ ↓ 91pF, 50V, 1%	C54	1	1	1
81	064-744	CAPACITOR, CER. MONO, 2,00pF, 50V, 1%	C115	1	1	1
82						

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ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
83	064-762	CAPACITOR, CER. MONO. 100pF, 100V, 5%	C1,10,11,28-31,49,50,61-64,97,129-132,177	19	19	19
84						
85						
86						
87	064-764	470pF, 50V, 5%	C80	1	1	1
88	064-768	3300pF, 50V, 5%	C76	1	1	1
89	064-825	CAPACITOR, CER. MONO, 2200pF, 50V, 1%	C94,99	2	2	2
90						
91						
92						
93	055-808	CAPACITOR, POLYCARB., .22uF, 100V, 1%	C122	1	1	1
94						
95						
96						
97						
98	069-092	CAPACITOR, POLYESTER, .047uF, 50V, 5%	C35	1	1	1
99						
100	069-097	.022uF, 50V, 5%	C103,104	2	2	2
101						
102						
103	069-113	CAPACITOR, POLYESTER, .1uF, 50V, 5%	C123,127,139	3	3	3
104						
105						
106						
107						
108	037-062	CAPACITOR, TANT, 56uF, 6V, 10%	C39	1	1	1
109	037-166	120uF, 10V,	C145	1	1	1
110	037-746	47uF, 20V,	C16,17,106	3	3	3
111	037-991	CAPACITOR, TANT, 22uF, 15V, 10%	C68,92,100,115,126	5	5	5
112						
113	038-254	CAPACITOR, VARIABLE, 9-35pF, 100V	C163	1	1	1
114						
115	017-210	CRYSTAL UNIT, 3.579545 MHz, CR-64/U	Y1	1	1	1
116						
117						
118						
119	013-689	DIODE, SWITCHING, CD6016	CR1,4-10	8	8	8
120						
121	038-243	VARACTOR, MV1650	CR3	1	1	1
122						
123	013-166	DIODE, ZENER, IN746A, 3.3V	VR1,2	2	2	2
123						
125						
126						
127	051-770	FERRITE-CHOKE	FL1-3	3	3	3

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ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
128	051-870	INDUCTOR, FIXED, 10uH, 5%	L5,14	2	2	-
129	068-363	10uH, 5%	L5,14			2
130	068-321	33uH, 5%	L12			1
131	068-058	33uH, 5%	L12	1	1	-
132	068-063	220uH, 5%	L10	1	1	-
133	068-064	300uH, 5%	L9	1	1	-
134	068-109	2.0uH, 10%	L8,17	2	2	-
135	068-326	220uH, 5%	L10			1
136	068-117	8.2uH, 5%	L6,15	2	2	-
137	068-125	6.8uH, 5%	L7,16	2	2	-
138	068-132	3.9uH, 10%	L11	1	1	-
139	068-327	300uH, 5%	L9			1
140	068-157	INDUCTOR, FIXED, 13uH, 5%	L4,13	2	2	-
141	068-336	INDUCTOR, FIXED, 2.0uH, 10%	L8,17			2
142	068-338	INDUCTOR, FIXED, 8.2uH, 5%	L6,15			2
143	068-340	INDUCTOR, FIXED, 6.8uH, 5%	L7,16			2
144	068-347	INDUCTOR, FIXED, 3.9uH, 10%	L11			1
145	068-351	INDUCTOR, FIXED, 13uH, 5%	L4,13			2
146	586-255	INTEGRATED CIRCUIT, CA3019	U4,25,31,75	4	4	4
147	590-540	CA3054	U22,78	2	2	2
148						
149						
150						
151	587-270	LH0002CN	U24,32,50-52,71,77,80,81	9	9	9
152						
153						
154	587-532	MC10105	U13,30,40	3	3	3
155	001-892	MC7905.2CT	U9	1	1	1
156						
157						
158						
159	000-146	NE529	U1,11,12,38,41,49,53,72,83	9	9	9
160						
161						
162	589-539	7400	U20,42	2	2	2
163	589-592	DG301CJ (3)	U33,82	2	2	2
164	589-813	74LS00	U10,84	2	2	2
165						
166	589-632	74LS193	U21	1	1	1
167	589-846	74S74	U2	1	1	1
168	589-847	74S86	U3	1	1	1
169						
170	589-931	INTEGRATED CIRCUIT, 74LS30	U34	1	1	1
171						
172						

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AMPEX — Ampex Corporation, Redwood City, California	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467050 SHEET 5	REV K

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
173	590-086	INTEGRATED CIRCUIT, DG303CJ	U76	1	1	1
174	590-333	74LS163	U35-37	3	3	3
175	590-448	LM310P	U44-46,54-56	6	6	6
176	590-458	LM393	U19	1	1	1
177	590-486	MC14538	U27	1	1	1
178	590-494	CD4532BE	U8	1	1	1
179	590-506	CD4011BE	U15,16,26, 63,68	5	5	5
180						
181	590-507	CD4070BE	U6,67,73	3	3	3
182	590-546	CD4013BE	U61	1	1	1
183	590-561	CA3140E	U5,23,66	3	3	3
184						
185	590-563	CD4042BE	U17	1	1	1
186	590-556	CD4081BE	U7,69	2	2	2
187	590-572	74C221	U28,29,48, 58,60,62,64,65,70	9	9	9
188						
189	590-593	CD4071BE	U39,74	2	2	2
190	587-719	CA3126Q	U79	1	1	1
191	590-601	LF356	U14,18	2	2	2
192						
193	590-616	74221	U43,59	2	2	2
194	590-962	INTEGRATED CIRCUIT, DG200CJ	U47,57	2	2	2
195						
196						
197						
198	066-652	RESISTOR, C.F., 470K OHMS, .25W, 5%	R191	1	1	1
199						
200	066-662	RESISTOR, C.F., 200 OHMS, .25W, 5%	R56,228,266	3	3	3
201	066-664	510	R40,41,96, 97,100,127, 134,149,242, 257	10	10	10
202						
203						
204						
205	066-665	1K	R8-10,31,34, 202,206,216	8	8	8
206						
207	066-667	3K	R11,39,67, 99,103,156, 181,241,251	9	9	9
208						
209						
210						
211	066-668	4.7K	R5,37,88,89, 93,141,154, 167,183,227	10	10	10
212						
213						
214						
215	066-669	8.2K	R92	1	1	1
216						
217	066-673	RESISTOR, C.F., 1.0M OHMS, .25W, 5%	R139	1	1	1

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AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM- 1467050 SHEET 6	REV K

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
218	066-677	RESISTOR, C.F., 68 OHMS, .25W, 5%	R203,258	2	2	2
219	066-689	2.2K	R59	1	1	1
220	066-711	7.5K	R169	1	1	1
221						
222	066-712	22K	R26,146	2	2	2
223	066-717	47K	R28,66,85, 94,142,143,	14	14	14
224			262,177,205,215, 230,231,254,256			
225						
226						
227	066-718	5.6K	R217,218,240	3	3	3
228	066-812	100	R32,196	2	2	2
229	066-814	270	R14,43,101, 102,150,151	6	6	6
230						
231						
232	066-815	300	R61,63	2	2	2
233	066-817	430	R12	1	1	1
234	066-819	620	R98	1	1	1
235						
236	066-823	1.1K	R249	1	1	1
237	066-824	1.5K	R22,51,112, 236	4	4	4
238	066-825	1.6K	R148	1	1	1
239						
240	066-826	2K	R4,38,71,129 153,182,224, 247,248,252	10	10	10
241						
242						
243						
244	066-830	10K	R15,24,33, 54,57,65,72,	27	27	27
245			77,87,90,91,113,128, 136,147,158,162,186,			
246			190, 193,194,199, 212,214,219,229,253			
247						
248						
249						
250	066-831	11K	R86	1	1	1
251						
252						
253	066-837	130	R168	1	1	1
254	066-840	680	R226,255	2	2	2
255						
256	066-847	33K	R170	1	1	1
257	066-849	100K	R76,173,197, 198,220,238	6	6	6
258						
259						
260	066-850	240K	R164,187	2	2	2
261	066-859	240	R13,42,152	3	3	3
262	066-856	RESISTOR, C.F., 15K OHMS, .25W, 5%	R58,126	2	2	2

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AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA | CODE IDENT NO **92739** | # LIST OF MATERIALS | LM-1467050 SHEET 7 | REV K

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03
263	066-865	RESISTOR, C.F., 12K OHMS, .25W, 5%	R62,64	2	2	2
264	066-867	51K	R7,55	1	2	2
265	066-872	360	R243	1	1	1
266						
267	066-873	20K	R1,35	2	2	2
268	066-940	2.2M	R25,213	2	2	2
269	066-984	160	R52,60	2	2	2
270	066-938	47	R2,3,6,73, 95,116,118,130,135,	26	26	26
271			140,155,171,172,175, 176,204,225,232,233,			
272			237,239,244,245,250, 259,261			
273	076-009	68K	R195	1	1	1
274	076-036	RESISTOR, C.F., 12 OHMS, .25W, 5%	R120,133	2	2	2
275						
276						
277						
278						
279						
280	041-793	RESISTOR, FIXED, COMP., 10M OHMS, .25W, 5%	R23,29,53	3	3	3
281						
282						
283						
284						
285	062-600	RESISTOR, M.F., 11K OHMS, .125W, 1%	R125	1	1	1
286	062-601	100K	R192	1	1	1
287						
288						
289	062-624	1K	R124	1	1	1
290	062-639	3.01K	R123	1	1	1
291	062-643	2K	R137	1	1	1
292						
293	062-693	20K	R159, 160, 184,185	4	4	4
294	062-836	75	R200,201,265	3	3	3
295	062-872	191	R174,260	2	2	2
296	062-902	499	R83	1	1	1
297	062-908	604	R18,48,80, 106,114,	7	7	7
298			179,235			
299						
300	062-928	1.1K	R20,46,47, 82,109,110,	8	8	8
301			208,210			
302						
303	062-934	1.62K	R16,17,21, 49,50,78,79,	16	16	16
304			84,104,105,111,115, 178,180,211,234			
305	062-936	1.74K	R19,44,45,81, 107,108,207,209	8	8	8
306						
307	062-940	RESISTOR, M.F., 2.1K OHMS, .125W, 1%	R36	1	1	1

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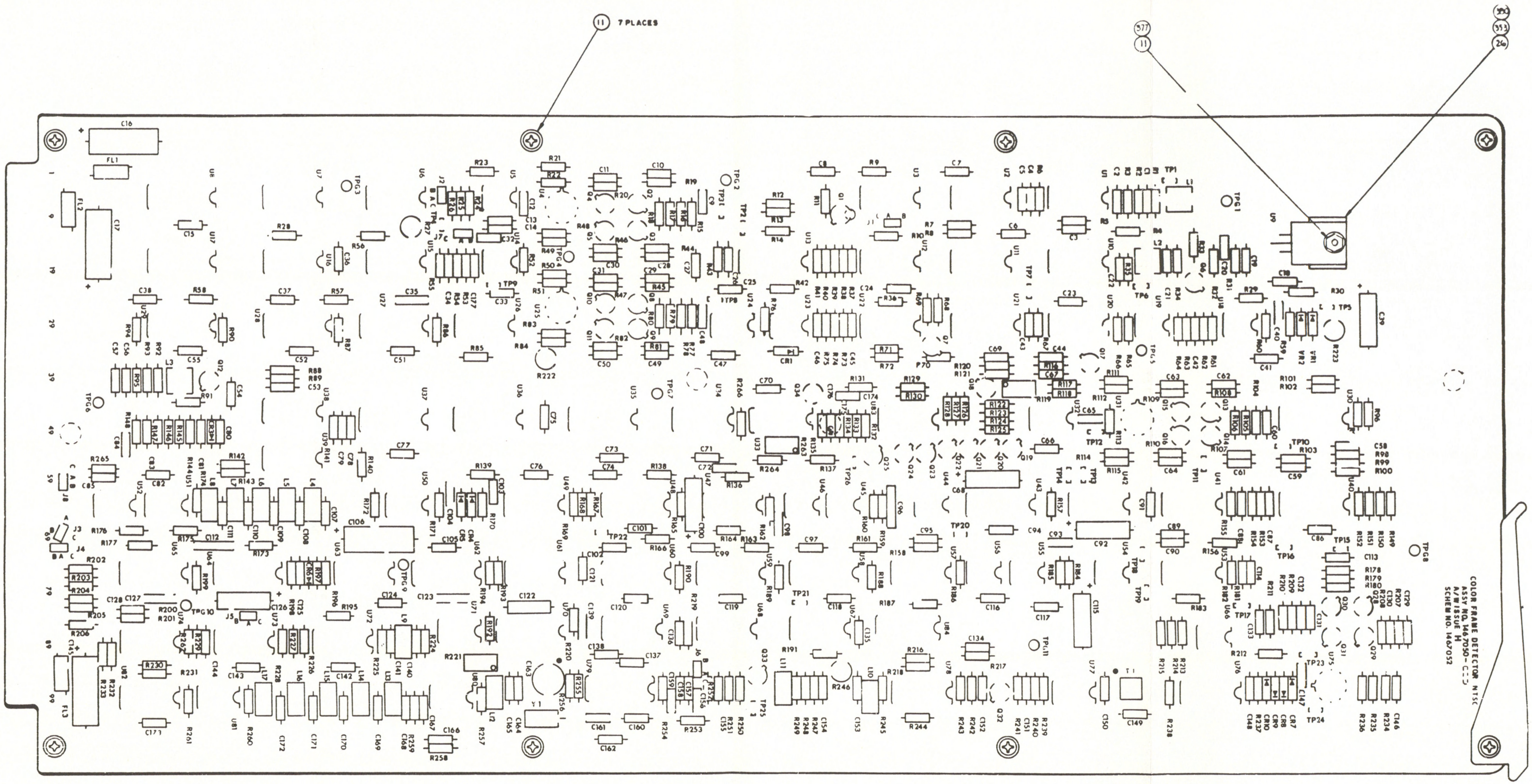
ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03
308	062-962	RESISTOR, M.F., 4.02K OHMS, .125W, 1%	R74,144	2	2	2
309	062-966	4.75K	R30	1	1	1
310	062-968	4.99K	R117,131	2	2	2
311						
312	062-972	5.62K	R69,70	2	2	2
313	062-973	5.76K	R121	1	1	1
314	062-980	8.06K	R75,145	2	2	2
315						
316	062-982	9.09K	R122	1	1	1
317	062-983	10K	R138,161, 165,166,188	5	5	5
318	062-992	15.4K	R189	1	1	1
319						
320						
321						
322	066-011	39.2K	R157,163	2	2	2
323	066-060	26.1K	R264	1	1	1
324	066-435	4.42K	R68	1	1	1
325	066-602	RESISTOR, M.F., 6.98K OHMS, .125W, 1%	R132	1	1	1
326						
327						
328	044-891	RESISTOR, VARIABLE, 200 OHMS, .5W, 20%	R222	1	1	1
329						
330	058-004	RESISTOR, VARIABLE, 1K OHMS, .5W, 20%	R246	1	1	1
331	058-540	5K 10%	R119	1	1	1
332	058-001	50K 20%	R27,223	2	2	2
333						
334						
335	058-765	RESISTOR, VARIABLE, 50K OHMS, .5W, 10%	R221,263	2	2	2
336						
337						
338						
339						
340	560-470	TRANSFORMER, WIDEBAND, T13-1T	T1	1	1	1
341						
342						
343						
344						
345						
346						
347	014-505	TRANSISTOR, SILICON, CD445 (2N3251)	Q2,3,7-9,13, 14,17,20,21, 23,28,30,34	14	14	14
348						
349						
350	014-581	TRANSISTOR, SILICON, CDG150 (2N2369A)	Q1,4-6,10- 12,15,16,18, 19,22,24,25, 29,31-33	18	18	18
351						
352						

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AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467050 SHEET 9	REV K

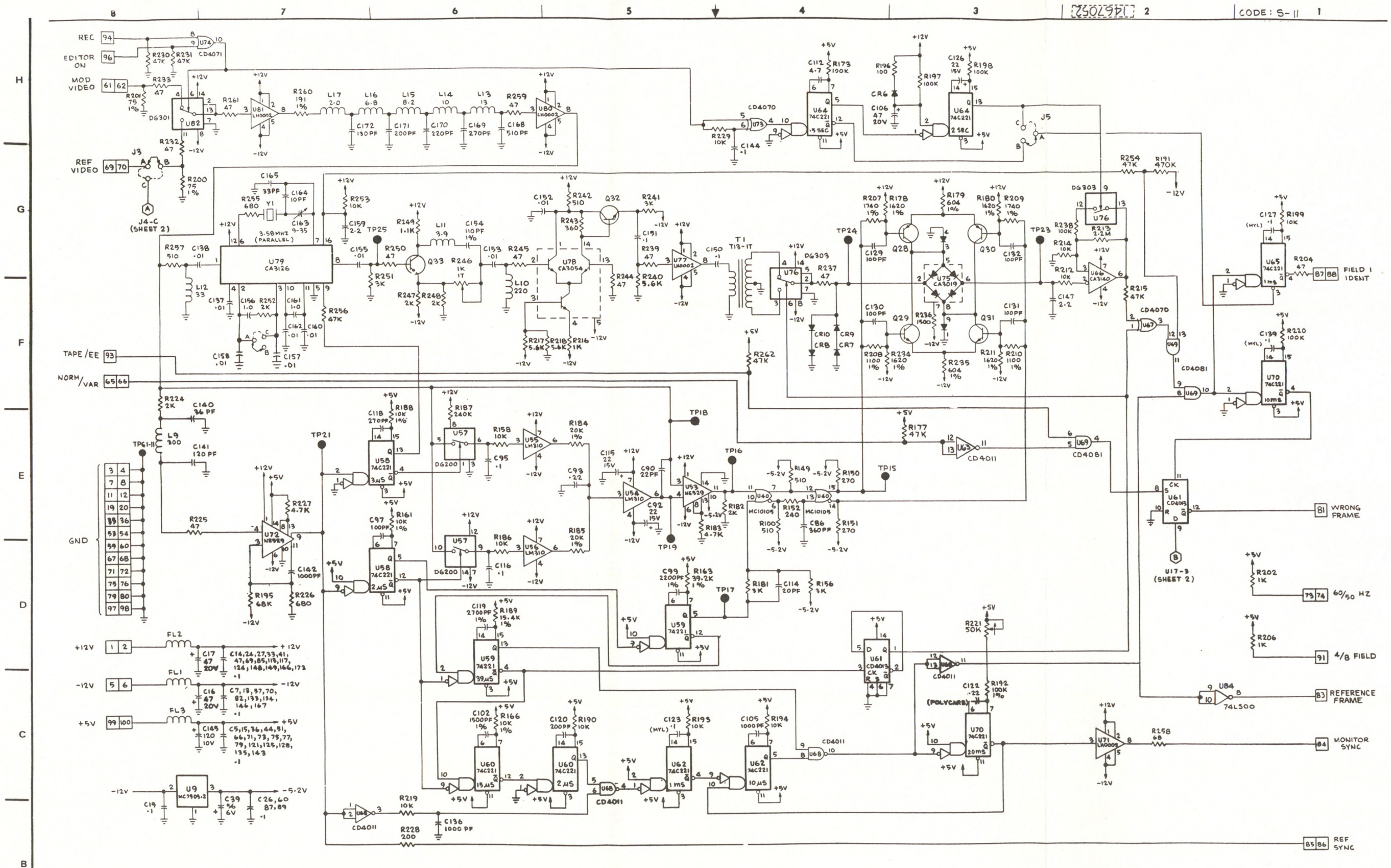
ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03
353	087-368	SILICONE, COMPOUND, GREASE, HEAT CONDUCTIVE	REF:U9	A/R	A/R	-
354						
355						
356	140-437	CONNECTOR, SIGNAL CIRCUIT, PLUG, RECT, 2 SOCKETS	REF: J1-8	8	8	8
357						
358						
359	187-055	TERMINAL, WIREWRAP	REF. J1-8	24	24	24
360	187-259	TERMINAL, PC, TESTPOINT	TP1-26	26	26	26
361						
362						
363						
364	280-998	SPACER, TRANSISTOR, TO5	REF: Q27	1	1	-
365						
366						
367						
368	435-122	CLIP, CRADLE	REF: Y1	1	1	1
369						
370						
371	460-011	RIVET, OVAL HD TUBULAR	REF: Y1	2	2	2
372						
373						
374						
375						
376						
377	496-004	NUT, HEX, CAPTIVE, WASHER, 4-40	REF: U9	1	1	1
378						
379						
380	582-167	TRANSISTOR MTG HDW, INSULATOR MICA	REF: U9	1	1	-
381	582-478	TRANSISTOR MTG. HDW, INSULATOR, SILICONE RUBBER	REF:U9			1
382						
383						
384						
385						
386	932-035	SHIELDING BEAD, FERRITE	REF:BASE Q1	+	1	1
387						
388						
389						
390						
391						
392						
393		NOTES:				
394		(3) STATIC SENSITIVE, SPECIAL HANDLING REQUIRED PER AMPEX STD HE1-1.				
395						
396						
397						

LM-1467050



COMPONENT SIDE

Assembly No. 1467050-03K.
Color Framer Detector PWA, A5, NTSC



NOTES: UNLESS OTHERWISE SPECIFIED

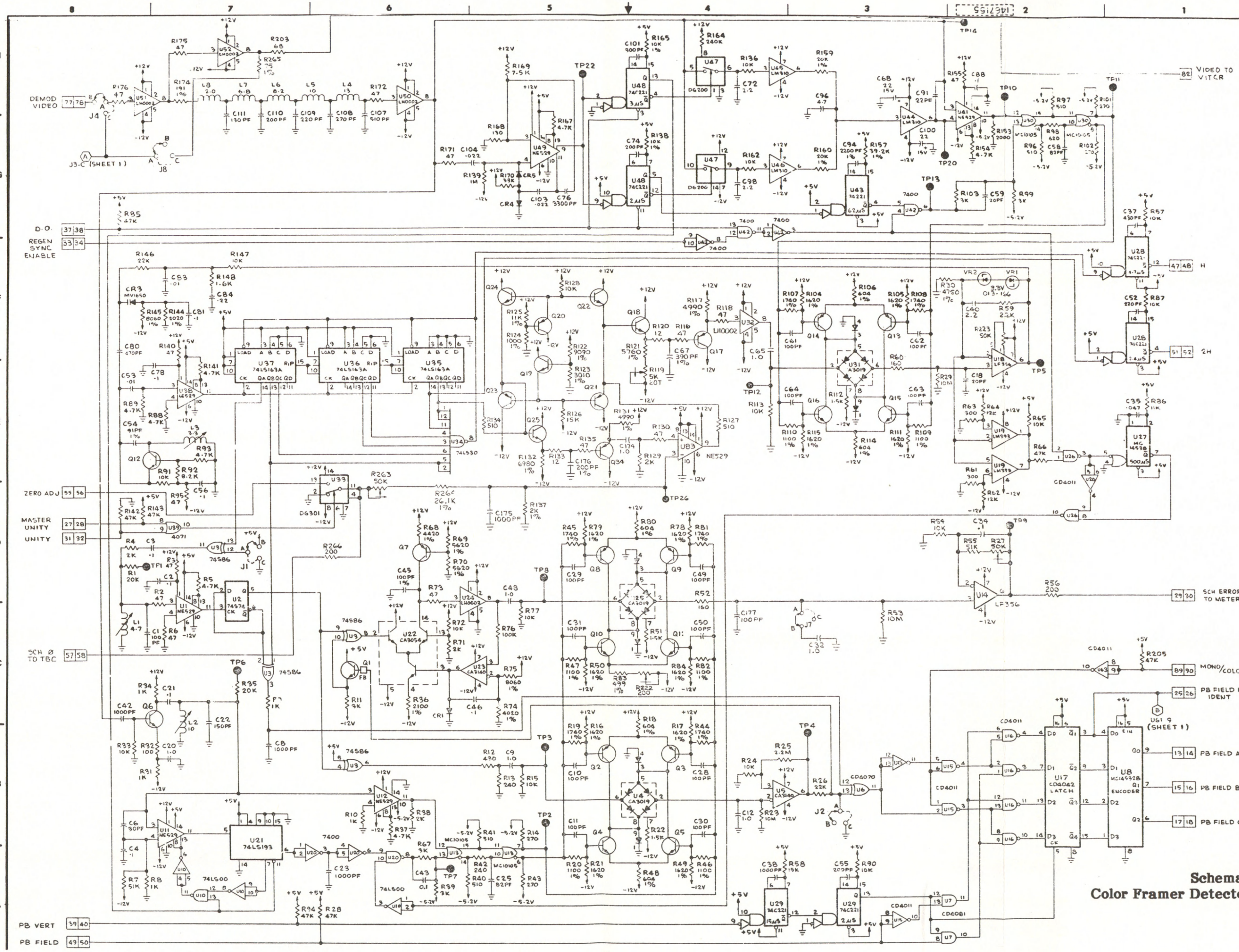
1. RESISTORS IN OHMS, 1/4W, 5%
2. CAPACITORS IN MICROFARADS
3. INDUCTORS IN MICROHENRIES
4. DIODES ARE 013-689
5. TRANSISTORS ARE:
   NPN, 014-381
   PNP, 014-305
6. ALL UNUSED CMOS I.C. INPUTS TIED TO APPROPRIATE LEVEL
7. *THIS SCHEMATIC REFLECTS PWA 1467050-03.*

IC LIST

REF DES	U20,42	U2	U21	U15,16,26,63,68	U6,67,73	U8	U79	U33,82	U24,32,50,51,52,71,77,80,81	U9	U1,11,12,30,41,49,53,72,83
AMPEX P/N	589-439	589-846	589-832	590-506	590-507	590-494	587-719	589-592	587-270	001-892	000-146
VENDOR P/N	7400	74S74	74LS193	CD4011BE	CD4070BE	CD4532BE	CA3126Q	DG301CJ	LH0002 CNA	MC7905.2CT	NE529
VOLTAGE (PIN)	+5V (14)	+5V (14)	+5V (16)	+5V (14)	+5V (14)	+5V (16)	+12 (12)	+12(14)-12(8)	+12(1,2)-12(4,5)	-12(2)-5.2(3)	+12(1)-12(6)
GROUND	7	7	8	7	7	8	5	7	—	1	—
REF DES	U10,84	U3	U43,59	U61	U39,74	U4,25,31,75	U5,23,66	U76	U44,45,46,54,55,56	U13,30,40	
AMPEX P/N	589-813	589-847	590-616	590-546	590-593	586-255	590-561	590-086	590-448	587-332	
VENDOR P/N	74LS00	74S86	74221	CD4013BE	CD4071BE	CA3019	CA3140E	DG303CJ	LM310P	MC10105	
VOLTAGE (PIN)	+5V (14)	+5V (14)	+5V (16)	+5V (14)	+5V (14)	—	+12(7)-12(4)	+12(14)-12(8)	+12(7)-12(4)	-5.2V (8)	
GROUND	7	7	8	7	7	—	—	7	—	1,16	
REF DES	U34	U35,36,37	U28,29,48,58,60,62,64,65,70	U17	U7,69	U22,78	U47,57	U14,18	U19	U27	
AMPEX P/N	589-931	590-333	590-572	590-563	590-556	590-540	590-962	590-601	590-458	590-486	
VENDOR P/N	74LS30	74LS163	74C221	CD4042BE	CD4081BE	CA3054	DG200CJ	LF356	LM393	MC14538	
VOLTAGE (PIN)	+5V (14)	+5V (16)	+5V (16)	+5V (16)	+5V (14)	-12V (5)	+12(12)-12(7)	+12(7)-12(4)	+12(8)-12(4)	+5V (16)	
GROUND	7	8	8	8	7	—	3	—	—	8	

REF DES	
LAST USED	NOT USED
C177	
CR10	CR2
FL3	
J8	
L17	
Q34	Q20,27
R266	
TP26	
TPG11	
U84	
VR2	
Y1	

Schematic No. 1467052D.
Color Framer Detector PWA, A5, NTSC
(Sheet 1 of 2)



Schematic No. 1467052D.
Color Framer Detector PWA, A5, NTSC
(Sheet 2 of 2)

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05					
				QTY REQD PER DASH NUMBER									
1													
2													
3	1467055	SCHEMATIC		B	C	D	E	F					
4													
5	1400004-01	EJECTOR, PWB		1	1	1	1	1					
6	1467008-AL	LABEL		1	1	1	1	1					
7	1467009-01	SHIELD		1	1	1	1	1					
8	250-155	BUMPER, PAD, SYNTHETIC RUBBER		3	3	3	3	3					
9	283-105	SPACER, PLAIN, .140 ID X .250 OD X .125 LG		1	1	1	1	1					
10	471-063	SCREW, MACH, PAN HD, XREC DR, 4-40 X .438 LG	REF:U1	1	1	1	2	2					
11	474-500	SCREW, MACH, PAN HD, XREC DR, 4-40 X .312 LG	REF:U1	8	8	8	7	7					
12	502-002	WASHER, LOCK, HELICAL SPRING, #4		1	1	1	1	1					
13	506-011	WASHER, BOWED		1	1	1	1	1					
14													
15	501-169	WASHER, PLAIN, #4	REF:U1				1	1					
16													
17													
18													
19	1374388-AC	INDUCTOR, VARIABLE, 1.8uH	L3	1	1	1	1	1					
20													
21													
22	1374388-AL	8.2uH	L1,10	2	2	2	2	2					
23	1374388-AM	INDUCTOR, VARIABLE, 10uH	L2	1	1	1	1	1					
24													
25													
26													
27													
28	582-434	HEATSINK	REF:U1	1	1	1	1	1					
29													
30													
31													
32													
33	1467460	PROM, SN74S288N3 (590-849)	U18	1	-01	-02	-02	-02					
34	1467461	PROM, SN74S288N3 (590-849)	U43	1	-01	-01	-01	-01					
35													
36													
37													

LM-1467053

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05
38	064-307	CAPACITOR, CER. MONO, .22uF, 100V, 20%	C77,120	2	2	2	2	2
39	064-314	1.0uF, 50V, 20%	C1,12,32,37, 56,104,110,	9	9	9	9	9
40			211,217					
41								
42	064-316	2.2uF, 50V, 20%	C20-22,67, 98,125,147,	10	10	10	10	10
43			187,188,214					
44								
45								
46	064-319	4.7uF, 50V, 20%	C124,166	2	2	2	2	2
47	064-651	220pF, 100V, 5%	C134,155,225	3	3	3	3	3
48	064-652	.01uF, 50V, 20%	C78,83,190, 205,207,208,	12	12	12	12	12
49			210,212,213, 215,216,218					
50								
51	064-653	0.1uF, 50V, 20%	C3,5-8,11, 15,18,19,23-	85	85	85	85	85
52		25,28,31,38,41,42,45-47,49,52,53, 55,63,64,66,68,69,71-73,75,76,79,						
53		80,84,85,87,89,90,92-94,97,105,111, 114-116,122,123,126,129-131,133,						
54		135,139-141,144,145,149,159,161,165,167, 168,172,175,180,181,184-186,189,						
55		191,193,198-202,223						
56								
57								
58								
59	064-662	30pF, 100V, 5%	C17,29	2	2	2	2	2
60	064-668	300pF, 100V, 5%	C128	1	1	1	1	1
61								
62	064-670	150pF, 100V, 5%	C157,227	2	2	2	2	2
63	064-671	22pF, 100V, 5%	C95,106	2	2	2	2	2
64	064-684	100pF, 50V, 1%	C54	1	1	1	1	1
65								
66	064-688	10pF, 50V, ±.5pF	C221	1	1	1	1	1
67	064-691	1500pF, 50V, 1%	C170	1	1	1	1	1
68	064-694	200pF, 100V, 5%	C62,113,117, 195	4	4	4	4	4
69								
70	064-699	390pF, 50V, 1%	C108,112	2	2	2	2	2
71	064-704	1000pF, 50V, 5%	C2,51,59,60, 65,86,109,	10	10	10	10	10
72			171,173,192					
73								
74	064-708	33pF, 100V, 5%	C222	1	1	1	1	1
75								
76	064-709	120pF, 100V, 5%	C4,43,194	4	4	4	3	3
77	064-711	20pF, 100V, 5%	C61,99,137, 143	4	4	4	4	4
78	064-713	36pF, 100V, 5%	C136,219	2	2	2	2	2
79								
80	064-715	82pF, 100V, 5%	C30,142	2	2	2	2	2
81	064-718	160pF, 100V, 5%	C206	1	1	1	1	1
82	064-722	CAPACITOR, CER. MONO, 270pF, 100V, 5%	C169	1	1	1	1	1

LM-1467053

AMPEX	Ampex Corporation REDWOOD CITY CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM- 1467053 SHEET 3	REV K

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05
				QTY REQD PER DASH NUMBER				
83	064-724	CAPACITOR, CER. MONO, 430pF, 100V, 5%	C118,154,224	3	3	3	3	3
84	064-725	180pF, 100V, 5%	C74,156,226	3	3	3	3	3
85	064-727	68pF, 50V, 1%	C82,203,204	3	3	3	3	3
86								
87	064-734	91pF, 50V, 1%	C209	1	1	1	1	1
88	064-744	2700pF, 50V, 1%	C148	1	1	1	1	1
89	064-762	100pF, 100V, 5%	C9,10,13,14, 16,33-36,39,	26	26	26	26	26
90			40,57,58,100-103, 132,153,158,160,					
91			162,176-178,228					
92								
93								
94	064-768	3300pF, 50V, 5%	C150	1	1	1	1	1
95	064-764	470pF, 50V, 5%	C48,81	2	2	2	2	2
96	064-767	CAPACITOR, CER. MONO, 4700pF, 50V, 5%	C44,88	2	2	2	2	2
97								
98	064-825	CAPACITOR, CER. MONO, 2200pF, 50V, 1%	C91,138,146	3	3	3	3	3
99								
100								
101	038-254	CAPACITOR, CER. VARIABLE, 9-35pF	C220	1	1	1	1	1
102								
103								
104								
105	055-808	CAPACITOR, POLYCARB, .22uF, 100V, 1%	C197	1	1	1	1	1
106	055-810	CAPACITOR, POLYCARB, 0.1uF, 100V, 1%	C26	1	1	1	1	1
107								
108								
109								
110	069-092	CAPACITOR, POLYESTER, .047uF, 50V, 5%	C70	1	1	1	1	1
111	069-097	.022uF, 50V, 5%	C151,152	2	2	2	2	2
112	069-113	0.1uF, 50V, 5%	C164,174,196	3	3	3	3	3
113								
114	069-183	CAPACITOR, POLYESTER, 0.1uF, 50V, 1%	C163,179	2	2	2	2	2
115								
116								
117								
118	037-062	CAPACITOR, TANT, 56uF, 6V, 10%	C119	1	1	1	1	1
119	037-186	120uF, 10V, 10%	C229	1	1	1	1	1
120	037-746	47uF, 20V, 10%	C27,50,183	3	3	3	3	3
121								
122	037-991	CAPACITOR, TANT, 22uF, 15V, 10%	C96,107,121, 127,162	5	5	5	5	5
123								
124								
125								
126								
127	017-211	CRYSTAL, 4.433618 MHz, CR64/U	Y1	1	1	1	1	1

LM-1467053

AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467053 SHEET 4	REV K

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05
128	013-689	DIODE, SWITCHING, CD6016	CR1-3,5-11	10	10	10	10	10
129								
130								
131								
132	038-243	VARACTOR, MV1650	CR4	1	1	1	1	1
133								
134								
135								
136	013-166	DIODE, ZENER, 1N746A, 3.3V	VR1,2	2	2	2	2	2
137								
138								
139								
140								
141	051-770	FERRITE, CHOKE	FL1-3	3	3	3	3	3
142	068-381	INDUCTOR, , FIXED, DIPPED, 3.3uH, 10%	L12				1	1
143	068-321	INDUCTOR, FIXED, DIPPED, 33uH, 5%	L14				1	1
144	068-326	INDUCTOR, FIXED, DIPPED, 220uH, 5%	L9,11				2	2
145	068-327	INDUCTOR, FIXED, DIPPED, 300uH, 5%	L13				1	1
146	051-967	INDUCTOR, FIXED, DIPPED, 3.3uH, 10%	L12	1	1	1	-	-
147	068-335	5.6uH, 5%	L7,18				2	2
148	068-338	8.2uH, 5%	L5,16				2	2
149	068-340	6.8uH, 5%	L6,17				2	2
150	068-058	33uH, 5%	L14	1	1	1	-	-
151	068-063	220uH, 5%	L9,11	2	2	2	-	-
152	068-064	300uH, 5%	L13	1	1	1	-	-
153	068-352	1.8uH, 10%	L8,19				2	2
154	068-099	5.6uH, 5%	L7,18	2	2	2	-	-
155	068-117	8.2uH, 5%	L5,16	2	2	2	-	-
156	068-125	6.8uH, 5%	L6,17	2	2	2	-	-
157	068-353	11uH, 5%	L4,15				2	2
158	068-168	1.8uH, 10%	L8,19	2	2	2	-	-
159	068-169	INDUCTOR, FIXED, DIPPED, 11uH, 5%	L4,15	2	2	2	-	-
160								
161								
162								
163								
164								
165	000-146	INTEGRATED CIRCUIT, NE52[illegible]	U10,11,36,38,50,56,60,76,98	9	9	9	9	9
166								
167								
168								
169	001-892	INTEGRATED CIRCUIT, MC7905.2 CT	U1	1	1	1	1	1
170								
171								
172								

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AMPEX	Ampex Corporation REDWOOD CITY CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467053 SHEET 5	REV K

ITEM NO	PART NUMBER	DESCRIPTION		REF DESIG	-01	-02	-03	-04	-05
173	586-203	INTEGRATED CIRCUIT, CA3028B		U108	1	1	1	1	1
174	586-255	CA3019		U2,4,24,48,103	5	5	5	5	5
175									
176									
177									
178	587-270	LH0002CN		U23,49,77,78,79,102,105,107,110,111	10	10	10	10	10
179	587-532	MC10105		U12,26,68,71	4	4	4	4	4
180	587-720	CA3128Q		U109	1	1	[illegible]	1	1
181									
182									
183									
184	589-539	7400		U34,72	2	2	2	2	2
185	589-592	DG301CJ	▷1	U55,112	2	2	2	2	2
186	589-813	74LS00		U20	1	1	1	1	1
187									
188	589-814	74LS04		U37,64	2	2	2	2	2
189	589-832	74LS193		U33	1	1	1	1	1
190	589-846	74S74		U14,52	2	2	2	2	2
191									
192	589-847	74S86		U35,51	2	2	2	2	2
193	589-931	74LS30		U39	1	1	[illegible]	1	1
194									
195									
196									
197	590-086	DG303CJ	▷1	U6,15,93,97,106	5	5	5	5	5
198	590-333	74LS163		U40-42	3	3	3	3	3
199	590-448	LM310		U5,7,9,57-59,61,62,73,91,96,104	12	12	12	12	12
200									
201	590-449	LM339		U8	1	1	1	1	1
202	590-458	LM393		U46	1	1	1	1	1
203	590-486	MC14538	▷1	U44	1	1	1	1	1
204									
205	590-494	CD4532	▷1	U32	1	1	1	1	1
206	590-506	CD4011BE	▷1	U17,45,86,88	4	4	4	4	4
207	590-507	CD4070BE	▷1	U28,65,82	3	3	3	3	3
208									
209	590-509	CD4073BE	▷1	U81	1	1	1	1	1
210	590-540	CA3054		U21	1	1	1	1	1
211	590-542	LM311		U84	1	1	1	1	1
212									
213	590-546	CD4013BE	▷1	U29,53,83,89	4	4	4	4	4
214	590-561	CA3140E		U3,22,94	3	3	3	3	3
215	590-563	CD4042BE	▷1	U19,31	2	2	2	2	2
216									
217	590-572	INTEGRATED CIRCUIT, 74C221	▷1	U27,30,54,63,67,80,87,95,99,100,101	11	11	11	11	11

AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467053 SHEET 6	REV K

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05
218	590-593	INTEGRATED CIRCUIT, CD4071BE [1>	U66,90	2	2	2	2	2
219	590-601	LF356	U13,16,47,92	4	4	4	4	4
220	590-616	74221	U25,69,74,85	4	4	4	4	4
221								
222	590-962	INTEGRATED CIRCUIT, DG200CJ [1>	U70,75	2	2	2	2	2
223								
224								
225								
226								
227								
228	066-652	RESISTOR, C.F., 470K OHMS, .25W, 5%	R257	1	1	1	1	1
229	066-662	200	R110,194,242	3	3	3	3	3
230	066-664	510	R57,58,113, 114,178,186,197,218, 227,228,281,333	12	12	12	12	12
231								
232								
233								
234	066-665	1K	R1,4,7,8,31, 82,84,89,105,120, 132,145,146,181,187, 283	16	16	16	16	16
235								
236								
237	066-667	3K	R56,92,111, 112,115,222,223, 231,232,326	10	10	10	10	10
238								
239								
240	066-668	4.7K	R32,54,131, 139,142-144,196, 203,237,294,297	12	12	12	12	12
241								
242								
243	066-669	8.2K	R36,138	2	2	2	2	2
244								
245	066-673	1M	R239	1	1	1	1	1
246	066-677	68	R248,306	2	2	2	2	2
247	066-689	2.2K	R154,315	2	2	2	2	2
248								
249	066-711	7.5K	R236	1	1	1	1	1
250	066-712	22K	R75,140	2	2	2	2	2
251	066-717	47K	R85,150,188, 189,190,193,215,244, 258,269,270,287,331	13	13	13	13	13
252								
253								
254								
255	066-718	5.6K	R318-320	3	3	3	3	3
256	066-720	3.3K	R83	1	1	1	1	1
257	066-812	100	R2,81,290	3	3	3	3	3
258								
259	066-814	270	R9,60,78,79, 202,219,220,226	8	8	8	8	8
260	066-815	300	R124,151	2	2	2	2	2
261	066-817	RESISTOR, C.F., 430 OHMS, .25W, 5%	R96	1	1	1	1	1
262								

LM-1467053

AMPEX | Ampex Corporation, Redwood City, California — CODE IDENT NO 92739 — LIST OF MATERIALS — LM-1467053 SHEET 7 — REV K

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05
263	066-819	RESISTOR, C.F., 620 OHMS, .25W, 5%	R229	1	1	1	1	1
264	066-823	1.1K	R324	1	1	1	1	1
265	066-824	1.5K	R25,68,69, 166,310	5	5	5	5	5
266								
267	066-825	1.6K	R134	1	1	1	1	1
268	066-826	2K	R35,37,40,55, 91,195,211,230, 322,323,327,332	12	12	12	12	12
269								
270								
271	066-829	6.8K	R316	1	1	1	1	1
272								
273	066-830	10K OHMS, .25W, 5%	R3,11,17,30, 33,34,38,40,42,43,50,	44	44	44	44	44
274		73,80,90,97,107,108, 118,119,122,141, 149,167,174,192,200,201,206,214,216,217,						
275		233,262,263,268,275,286,291,293,300,301, 302,305,328						
276								
277								
278								
279	066-831	11K OHMS, .25W, 5%	R148	1	1	1	1	1
280	066-837	130	R265	1	1	1	1	1
281								
282	066-840	680	R296,330	2	2	2	2	2
283	066-844	16K	R191	1	1	1	1	1
284	066-845	24K	R260,329	2	2	2	2	2
285								
286	066-847	33K	R238	1	1	1	1	1
287	066-849	100K	R47,95,121,256, 261,285,288,289	8	8	8	8	8
288	066-850	240K	R225,235	2	2	2	2	2
289								
290	066-852	62K	R51	1	1	1	1	1
291	066-856	15K	R208,259	2	2	2	2	2
292	066-859	240	R59,61,116,221	4	4	4	4	4
293								
294	066-865	12K	R123,152	2	2	2	2	2
295	066-867	51K	R6	1	1	1	1	1
296	066-873	20K	R5,128	2	2	2	2	2
297								
298	066-938	47 OHMS, .25W, 5%	R93,117,129, 130,133,137,	25	25	25	25	25
299		170,171,173,179,182,240,241,245,246,271, 272,298,307,312,317,321,325,334,336						
300								
301								
302	066-940	2.2M OHMS, .25W, 5%	R18,284	2	2	2	2	2
303	066-958	75K	R74	1	1	1	1	1
304								
305	066-984	RESISTOR, C.F., 160 OHMS, .25W, 5%	R29,71,156	3	3	3	3	3
306								
307								

LM-1467053

AMPEX Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467053 SHEET 8	REV K

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05
308	076-009	RESISTOR, C.F., 68K OHMS, .25W, 5%	R295	1	1	1	1	1
309	076-036	RESISTOR, C.F., 12 OHMS, .25W, 5%	R175,183	2	2	2	2	2
310								
311								
312								
313								
314	041-793	RESISTOR, COMP, 10M OHMS, .25W, 5%	R19,72,157	3	3	3	3	3
315								
316								
317								
318								
319								
320	062-600	RESISTOR, M.F., 11K OHMS, .25W, 1%	R209	1	1	1	1	1
321	062-601	100K	R304	1	1	1	1	1
322	062-624	1K	R210	1	1	1	1	1
323								
324	062-639	3.01K	R180	1	1	1	1	1
325	062-643	2K	R86	1	1	1	1	1
326	062-693	20K	R198,199,204,205	4	4	4	4	4
327								
328	062-694	15K	R280	1	1	1	1	1
329	062-836	75	R247,249,250	3	3	3	3	3
330	062-902	499	R103	1	1	1	1	1
331								
332	062-904	511	R314	1	1	1	1	1
333	062-908	604	R14,23,27,66,100, 160,168,254,309	9	9	9	9	9
334	062-928	1.1K	R15,24,64,65,77,102, 163,164,273,274	10	10	10	10	10
335								
336	062-934	1.62K	R12,13,16,21,22,26, 28,67,70,98,99,104,	20	20	20	20	20
337			158,159,165,169,252, 253,308,311					
338								
339								
340	062-936	1.74K	R10,20,62,63,76, 101,161,162,251, 255	10	10	10	10	10
341								
342								
343	062-940	2.1K	R52	1	1	1	1	1
344	062-945	2.43K	R44,45	2	2	2	2	2
345								
346	062-962	4.02K	R53,135	2	2	2	2	2
347	062-966	4.75K	R153,176	1	1	1	2	2
348	062-968	4.99K	R172,185	2	2	2	2	2
349								
350	062-972	5.62K	R126,127	2	2	2	2	2
351	062-973	5.76K	R176	1	1	1	-	-
352	062-980	RESISTOR, M.F., 8.06K OHMS, .25W, 1%	R94,136	2	2	2	2	2

LM-1467053

AMPEX Ampex Corporation REDWOOD CITY CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467053 SHEET 9	REV K

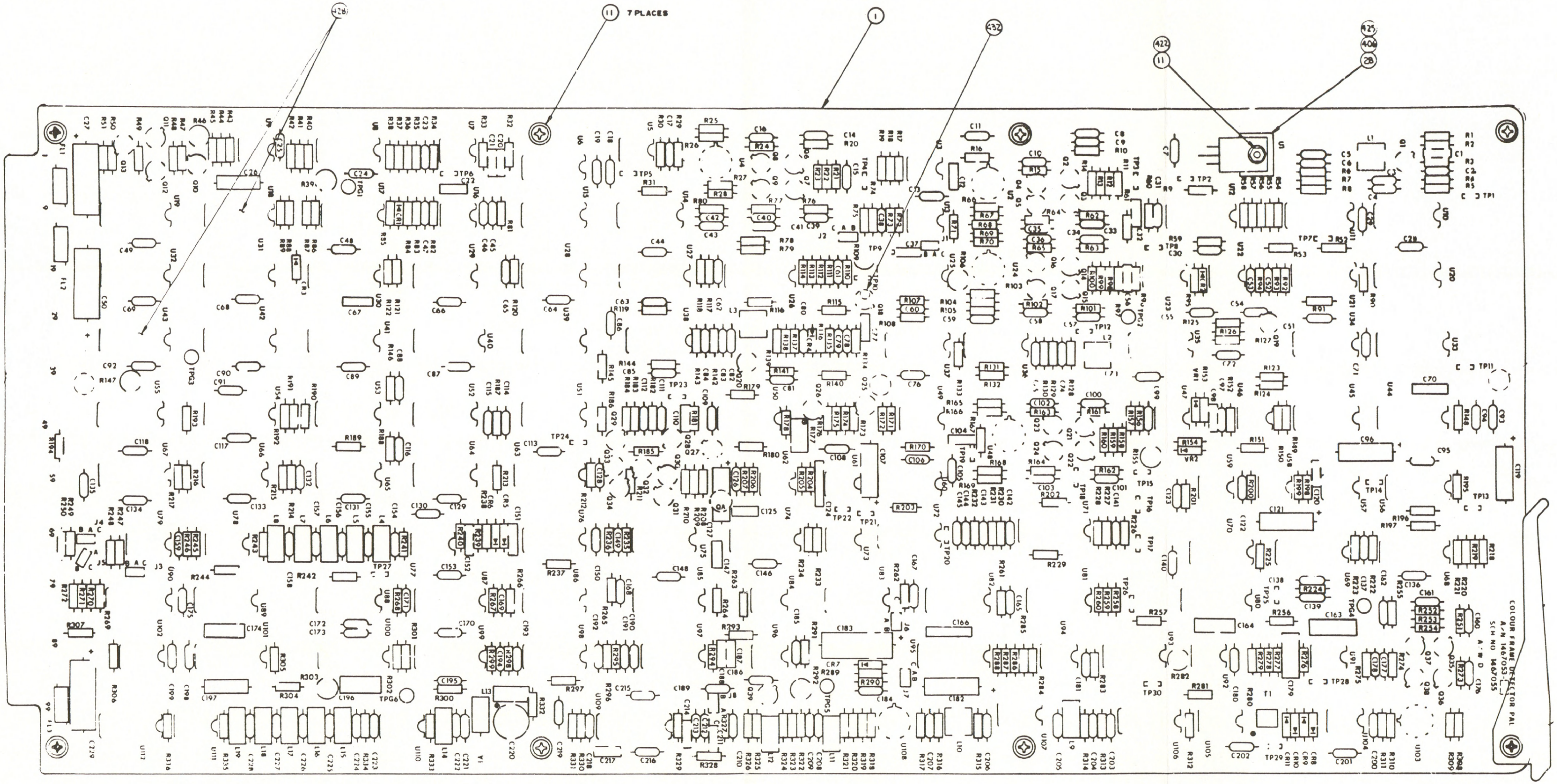
ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05
353	062-982	RESISTOR, M.F., 9.09K OHMS, .25W, 1%	R207	1	1	1	1	1
354	062-983	10K	R41,88,212,213, 266,267,299	7	7	7	7	7
355	062-992	15.4K	R264	1	1	1	1	1
356								
357								
358								
359	066-011	39.2K	R224,234	2	2	2	2	2
360	066-060	26.1K	R87	1	1	1	1	1
361	066-081	523	R313	1	1	1	1	1
362								
363	066-191	205	R243,335	2	2	2	2	2
364	066-435	4.42K	R125	1	1	1	1	1
365	066-602	6.98K	R184	1	1	1	1	1
366								
367	066-656	30.1K	R279	1	1	1	1	1
368	066-875	127K	R277	1	1	1	1	1
369	066-881	63.4K	R276,278	2	2	2	2	2
370								
371								
372								
373	076-361	RESISTOR, M.F., 210K OHMS, .25W, 1%	R48	1	1	1	1	1
374								
375								
376								
377								
378								
379	044-891	RESISTOR, VARIABLE, 200 OHMS, .5W, 20%	R106	1	1	1	1	1
380	044-944	5K 20%	R282	1	1	1	1	1
381								
382								
383								
384	058-001	50K 20%	R46,109,155, 303	4	4	4	4	4
385	058-004	1K 20%	R292	1	1	1	1	1
386	058-251	100K 20%	R147	1	1	1	1	1
387								
388	058-540	5K 10%	R177	1	1	1	1	1
389	058-611	RESISTOR, VARIABLE, 10K OHMS, .5W, 20%	R39	1	1	1	1	1
390								
391								
392								
393								
394								
395	560-470	TRANSFORMER, WIDEBAND, T13-1T	T1	1	1	1	1	1
396								
397								

LM-1467053

AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467053 SHEET 10	REV K

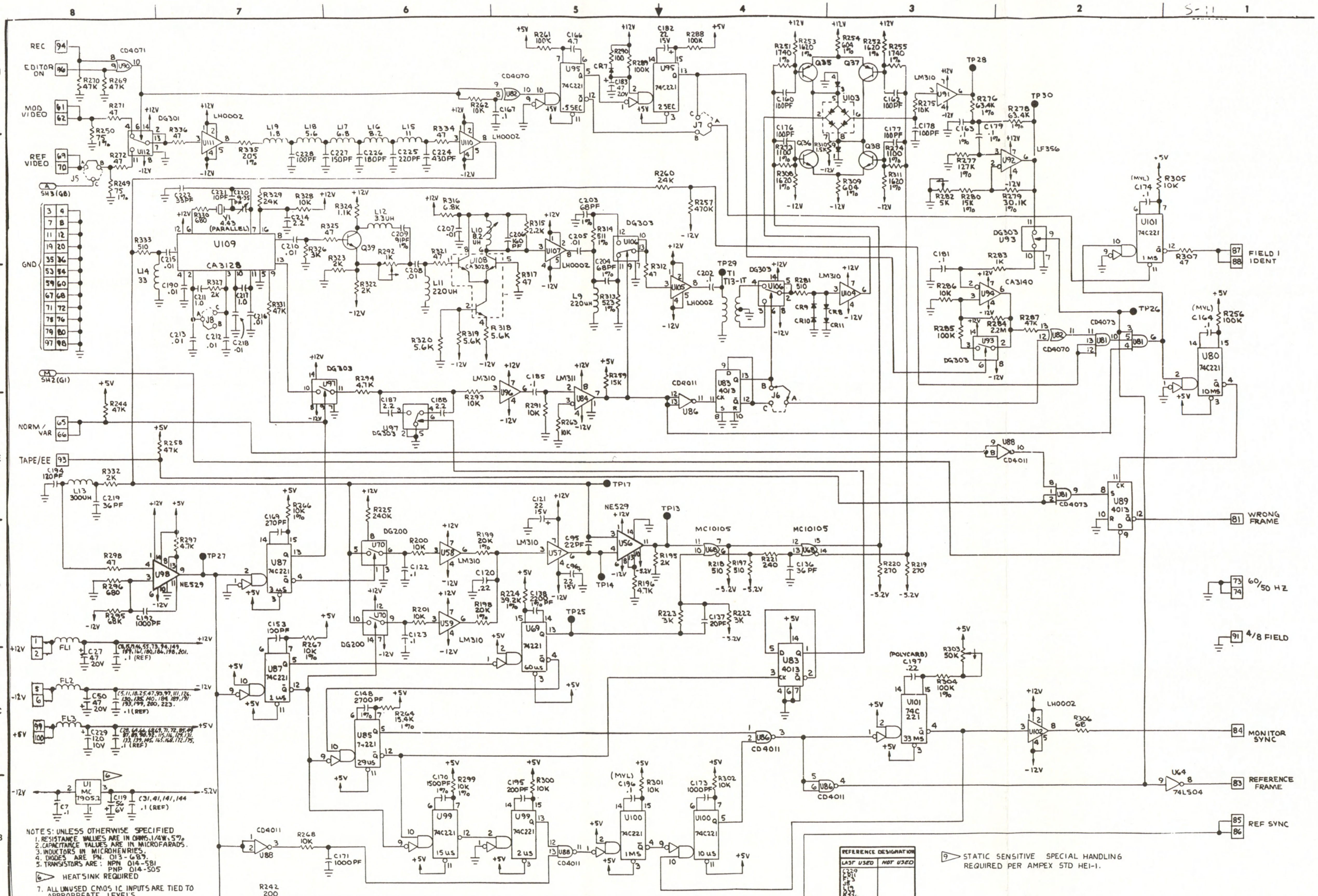
ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05
398	014-505	TRANSISTOR, PNP, CD445 (2N3251)	Q2,3,6,7,10,11, 14,15,19,21,22,	18	18	18	18	18
399			25,28,31-33,35,37					
400								
401	014-581	TRANSISTOR, NPN (2N2369A)	Q1,4,5,8,9,12,13, 16-18,20,23,24,26	21	21	21	21	21
402			27,29,30,34,36, 38,39					
403								
404								
405								
406	087-388	SILICON COMPOUND, HEAT CONDUCTIVE	REF:U1	A/R	A/R	A/R	-	-
407								
408								
409	140-437	CONNECTOR, SIGNAL CIRCUIT, PLUG, RECT, 2 SOCKETS	J1-8	8	8	8	8	8
410								
411								
412	187-055	TERMINAL, WIREWRAP	REF:J1-8	24	24	24	24	24
413	187-259	TERMINAL, PC, TESTPOINT	TP1-30	30	30	30	30	30
414								
415								
416	435-122	CLIP, CRADLE, CRYSTAL	REF:Y1	1	1	1	1	1
417								
418								
419	460-011	RIVET, OVAL HEAD, TUBULAR	REF:Y1	2	2	2	2	2
420								
421								
422	496-004	NUT, HEX, CAPTIVE WASHER, 4-40	REF:U1	1	1	1	1	1
423								
424								
425	582-167	TRANSISTOR MTG HDW, INSULATOR, MICA	REF:U1	1	1	1	-	-
426	582-478	TRANSISTOR MTG HDW, INSULATOR, SILICONE RUBBER	REF:U1				1	1
427								
428	582-331	INTEGRATED CIRCUIT, MTG. HDW., SOCKET, 16 PIN	REF: U18,43	2	2	2	2	2
429								
430								
431								
432	932-035	SHIELDING BEAD, FERRITE	REF:BASE Q18	-	1	1	1	1
433								
434								
435								
436								
437								
438								
439								
440		NOTES:						
441		▷1 STATIC SENSITIVE, SPECIAL HANDLING REQUIRED PER AMPEX STD HE1-1.						
442								

LM-1467053



COMPONENT SIDE

Assembly No. 1467053-05K.
Color Framer Detector PWA, A5, PAL



NOTES: UNLESS OTHERWISE SPECIFIED
1. RESISTANCE VALUES ARE IN OHMS, 1/4W, 5%
2. CAPACITANCE VALUES ARE IN MICROFARADS.
3. INDUCTORS IN MICROHENRIES.
4. DIODES ARE PN. 013-689.
5. TRANSISTORS ARE: NPN 014-581
   PNP 014-505

6 ▷ HEATSINK REQUIRED

7. ALL UNUSED CMOS IC INPUTS ARE TIED TO APPROPREATE LEVELS.

8. THIS SCHEMATIC REFLECTS PWL 1467053-05.

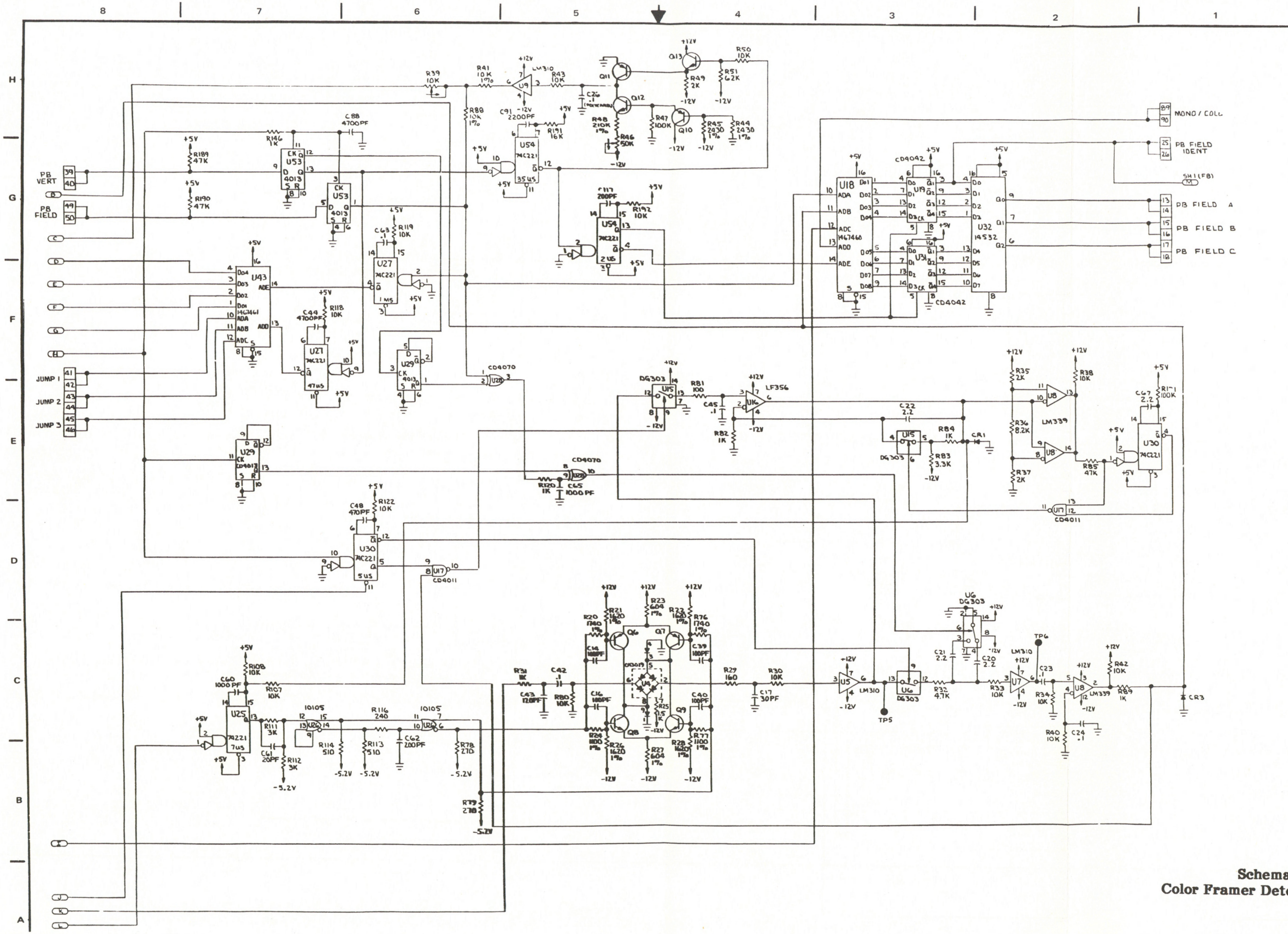
9 ▷ STATIC SENSITIVE SPECIAL HANDLING REQUIRED PER AMPEX STD HEI-1.

I.C. LIST

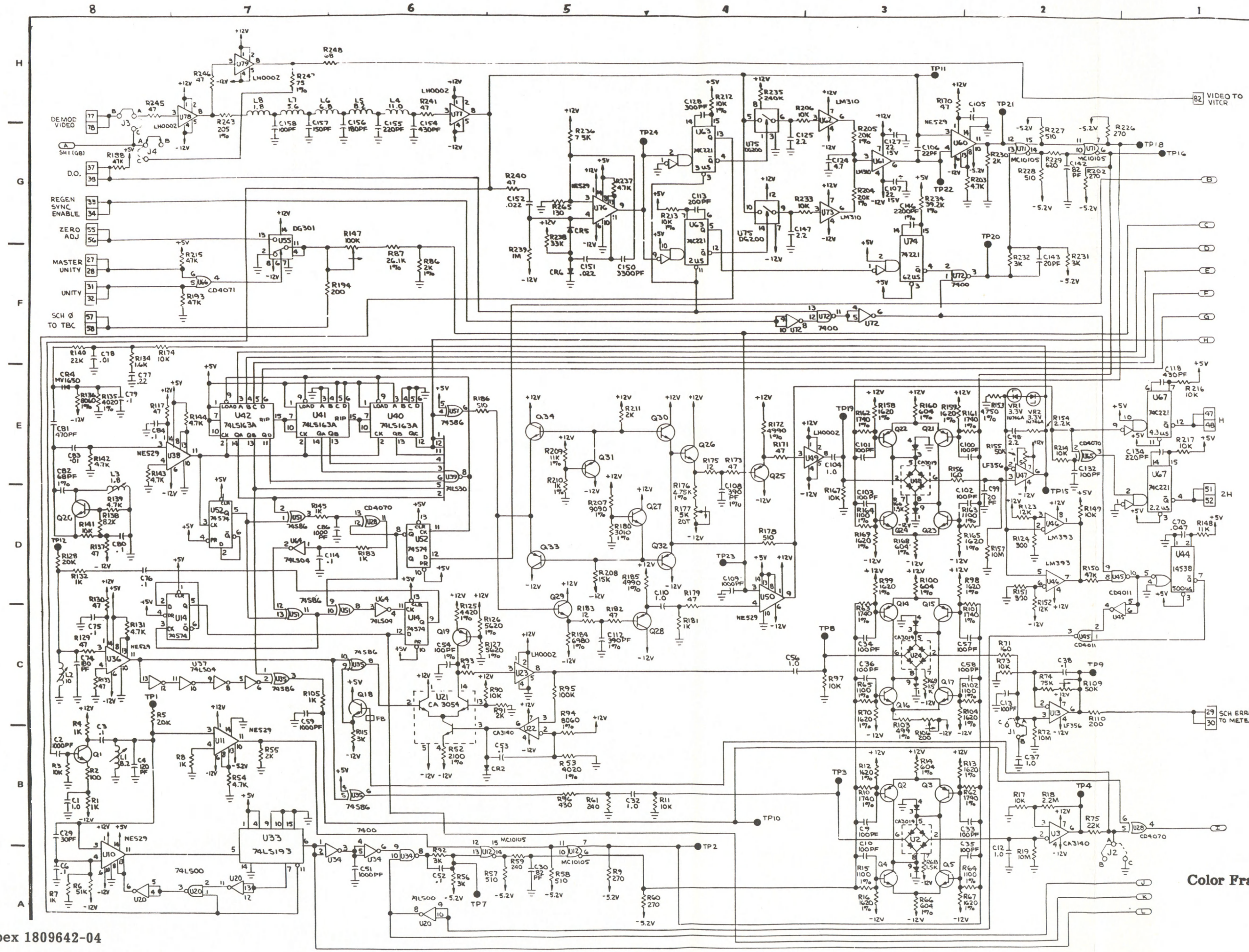
REF DES	U5,7,9,57-59,61 62,73,91,96,104.	U10,11,36,38,50,56 60,76,98.	U1	U2,4,24,48, 103.	U3,22,94	U6,15,93, 97,106	U8	U12,26,68,71	U13,16,47,92	U14,52	U17,45,86,88	U18	U19,31	U20	U21	U25,69,74,85	U28,65,82	U29,53,83,89	U32
AMPEX PN	590-448	000-146	001-892	586-255	590-561	590-084	590-449	587-532	590-601	589-846	590-506	1467460	590-563	589-813	590-540	590-616	590-507	590-546	590-494
VENDOR PN	LM310P	NE529	7905.2	CA3019	CA3140E	DG303CJ	LM339	MC10105	LF356	74S74	CD4011	74S288N3	CD4042	74LS00	CA3054	74221	CD4070	CD4013	CD4532
VOLTAGE (PIN)	+12V(7) -12V(4)	+12V(1) -12V(6)	+12V(2)-5.2(3)	—	+12V(7)-12V(4)	+12V(14)-12V(8)	+12V(3)-12V(12)	-5.2(8)	+12V(7)-12V(4)	+5V(14)	+5V(14)	+5V(16)	+5V(16)	+5V(14)	-12V(5)	+5V(16)	+5V(14)	+5V(14)	+5V(16)
GND	—	—	1	—	—	7 9▷	—	1,16	—	7	7 9▷	9	8 9▷	7	—	8	7 9▷	7 9▷	8 9▷
REF DES	U23,49,77-79,102 105,107,110,111	U27,30,54,63,67,80 87,95,99,100,101	U33	U34,72	U35,51	U37,64	U39	U40,41,42	U43	U44	U46	U55,112	U66,90	U70,75	U81	U84	U108	U109	
AMPEX PN	587-270	590-572	589-832	589-539	589-847	589-819	589-931	590-333	1467461	590-486	590-458	589-592	590-593	590-962	590-509	590-542	586-203	587-720	
VENDOR PN	LH0002CN	74C221	74LS193	7400	74S86	74LS04	74S30	74LS163	74S288N3	14538	LM393	DG301CJ	CD4071	DG200CJ	CD4073	LM311	CA3028B	CA3128Q	
VOLTAGE (PIN)	+12V(1,2)-12V(4,5)	+5V(16)	+5V(16)	+5V(14)	+5V(14)	+5V(14)	+5V(14)	+5V(16)	+5V(16)	+5V(16)	+12V(8)-12V(4)	+12V(14)-12V(8)	+5V(14)	+12V(12)-12V(7)	+5V(14)	+12V(8)-12V(4)	—	+12V(12)	
GND	—	8 9▷	8	7	7	7	7	8	8	8 9▷	—	7 9▷	7 9▷	3 9▷	7 9▷	1	—	5	

Ampex 1809642-04

Schematic No. 1467055E/F.
Color Framer Detector PWA, A5, PAL
(Sheet 1 of 3)
10-205/10-206



Schematic No. 1467055E/F.
Color Framer Detector PWA, A5, PAL
(Sheet 2 of 3)



Schematic No. 1467055E/F.
Color Framer Detector PWA, A5, PAL
(Sheet 3 of 3)

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER									
				-01									
1													
2													
3	1467752	SCHEMATIC		-									
4													
5	1400004-01	EJECTOR, PWB		1									
6	1467008-BN	LABEL		1									
7	1467009-01	SHIELD		1									
8	250-155	BUMPER, PAD, SYNTHETIC RUBBER		3									
9	283-105	SPACER, PLAIN, .140 ID X .250 OD X .125 LG		1									
10	471-063	SCREW, MACH., PAN HD., XREC, 4-40 X .438		1									
11	474-500	SCREW, MACH., PAN HD., XREC 4-40 X .312	REF:U6	8									
12	502-002	WASHER, LOCK #4		1									
13	506-011	WASHER, BOWED		1									
14													
15													
16													
17													
18													
19	1374388-AC	INDUCTOR, VARIABLE, 1.8uH	L1	1									
20	1374388-AH	INDUCTOR, VARIABLE, 4.7uH	L2,10	2									
21	582-434	HEATSINK	REF:U6	1									
22													
23													
24	1467461	PROM. SN74S288N3 (590-849)	U18	-01									
25	1467462	PROM, SN74S288N3 (590-849)	U4	-01									
26													
27													
28	064-307	CAPACITOR, CER., MONO., .22uF, 100V, 20%	C20	1									
29	064-314	1.0uF, 50V, 20%	C44	1									
30	064-316	2.2uF, 50V, 20%	C1,2,18,63, 74,103,104	7									
31	064-319	4.7uF, 50V, 20%	C56,96	2									
32													
33	064-651	220pF, 100V, 5%	C67,80	2									
34	064-652	.01uF, 50V, 20%	C21,25,39 126,128	5									
35	064-653	CAPACITOR, CER., MONO., 0.1uF, 50V, 20%	C3,5-11,13,14, 16,17,22,23,26	56									
36		27,29,30,32,33,37,38,41,42,49,53,55,57,61,64-66,69,72, 95, 73,75,84,85,89-92,98,102,105,107,109-111,113,118,119,122-124											
37	064-668	CAPACITOR, CER., MONO., 300pF, 100V, 5%	C59,62,121	3									

LM-1467750

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
38	064-670	CAPACITOR, CER., MONO., 150pF, 100V, 5%	C82	1
39	064-671	22pF, 100V, 5%	C45	1
40	064-691	1500pF, 50V, 1%	C97	1
41	064-694	200pF, 100V, 5%	C48,50,114	3
42				
43	064-699	390pF, 50V, 1%	C47	1
44	064-704	1000pF, 50V, 5%	C12,94,99,106	4
45	064-709	120pF, 100V, 5%	C108	1
46	064-711	20pF, 100V, 5%	C19,71	2
47	064-718	160pF, 100V, 5%	C40,125	2
48	064-713	36pF, 100V, 5%	C120	1
49	064-715	82pF, 100V, 5%	C70	1
50	064-722	270pF, 100V, 5%	C93	1
51	064-724	430pF, 100V, 5%	C51,79	2
52	064-725	180pF, 100V, 5%	C81	1
53				
54	064-727	68pF, 50V, 1%	C24	1
55	064-744	2700pF, 50V, 1%	C87	1
56	064-762	100pF, 100V, 5%	C35,36,52,54,60,83,88	7
57	064-764	470pF, 50V, 5%	C28	1
58	064-793	8.2pF, 50V, ± .5pF	C68,130	2
59	064-767	4700pF, 50V, 5%	C31	1
60	064-768	3300pF, 50V, 5%	C76	1
61	064-825	CAPACITOR, CER., MONO., 2200pF, 50V, 1%	C34,86,129	3
62				
63				
64	055-808	CAPACITOR, POLYCARB., .22uF, 100V, 1%	C116	1
65				
66				
67	069-097	CAPACITOR, POLYESTER, .022uF, 50V, 5%	C77,78	2
68	069-113	CAPACITOR, POLYESTER, 0.1uF, 50V, 5%	C100,115,127	3
69				
70				
71	037-062	CAPACITOR, TANT., 56uF, 6V, 10%	C43	1
72	037-186	CAPACITOR, TANT., 120uF, 10V, 10%	C117	1
73	037-746	CAPACITOR, TANT., 47uF, 20V, 10%	C4,15,101	3
74	037-991	CAPACITOR, TANT., 22uF, 15V, 10%	C46,58,112	3
75				
76				
77	013-689	DIODE, SWITCHING, CD6016	CR1,3,4,5	4
78				
79	038-243	DIODE, VARACTOR, MV1650	CR2	1
80				
81	013-166	DIODE, ZENER, IN746A, 3.3V	VR1,2	2
82				

LM-1467750

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
83	051-770	INDUCTOR, CHOKE, FERRITE	FL1-3	3
84				
85				
86	068-327	INDUCTOR, FIXED, DIPPED, 300uH, 5%	L9	1
87	068-335	INDUCTOR, FIXED, DIPPED, 5.6uH, 5%	L7	1
88	068-338	INDUCTOR, FIXED, DIPPED, 8.2uH, 5%	L5	1
89				
90	068-340	INDUCTOR, FIXED, DIPPED, 6.8uH, 5%	L6	1
91	068-352	INDUCTOR, FIXED, DIPPED, 1.8uH, 10%	L8	1
92	068-353	INDUCTOR, FIXED, DIPPED, 11uH, 5%	L4	1
93	068-355	INDUCTOR, FIXED, DIPPED, 7.5uH, 10%	L3,11	2
94				
95				
96	000-146	INTEGRATED CIRCUIT, NE529	U13,25,38,54	4
97	001-892	INTEGRATED CIRCUIT, MC7905.2CT	U6	1
98	586-255	INTEGRATED CIRCUIT, CA3019	U19	1
99	587-270	INTEGRATED CIRCUIT, LH0002CN	U20,39-41, 58,64	6
100				
101	587-532	INTEGRATED CIRCUIT, MC10105	U33	1
102	589-539	INTEGRATED CIRCUIT, 7400	U34	1
103	589-592	INTEGRATED CIRCUIT, DG301CJ (3)	U65	1
104	589-799	INTEGRATED CIRCUIT, CA2111AE	U32,63	2
105				
106	589-814	INTEGRATED CIRCUIT, 74LS04	U29	1
107	589-847	INTEGRATED CIRCUIT, 74S86	U21	1
108	589-931	INTEGRATED CIRCUIT, 74LS30	U14	1
109	590-086	INTEGRATED CIRCUIT, DG303CJ (3)	U1,53	2
110				
111	590-333	INTEGRATED CIRCUIT, 74LS163	U15-17	3
112	590-448	INTEGRATED CIRCUIT, LM310	U2,3,26,27, 35,52	6
113	590-449	INTEGRATED CIRCUIT, LM339	U9	1
114	590-494	INTEGRATED CIRCUIT, CD4532 (3)	U11	1
115				
116	590-506	INTEGRATED CIRCUIT, CD4011BE	U46,48	2
117	590-507	INTEGRATED CIRCUIT, CD4070BE	U7,30,42	3
118	590-509	INTEGRATED CIRCUIT, CD4073BE	U60	1
119	590-546	INTEGRATED CIRCUIT, CD4013BE	U8,23,43,49	4
120				
121	590-563	INTEGRATED CIRCUIT, CD4042BE	U5,10	2
122	590-572	INTEGRATED CIRCUIT, 74C221	U22,24,28,31,47, 51,55-57,59	10
123	590-593	INTEGRATED CIRCUIT, CD4071BE (3)	U50	1
124	590-601	INTEGRATED CIRCUIT, LF356	U12,44	2
125	590-616	INTEGRATED CIRCUIT, 74221	U36,45,62	3
126	590-829	INTEGRATED CIRCUIT, CD4098BE (3)	U61	1
127	590-962	INTEGRATED CIRCUIT, DG200CJ (3)	U37	1

LM-1467750

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467750 SHEET 4 of 5	REV B

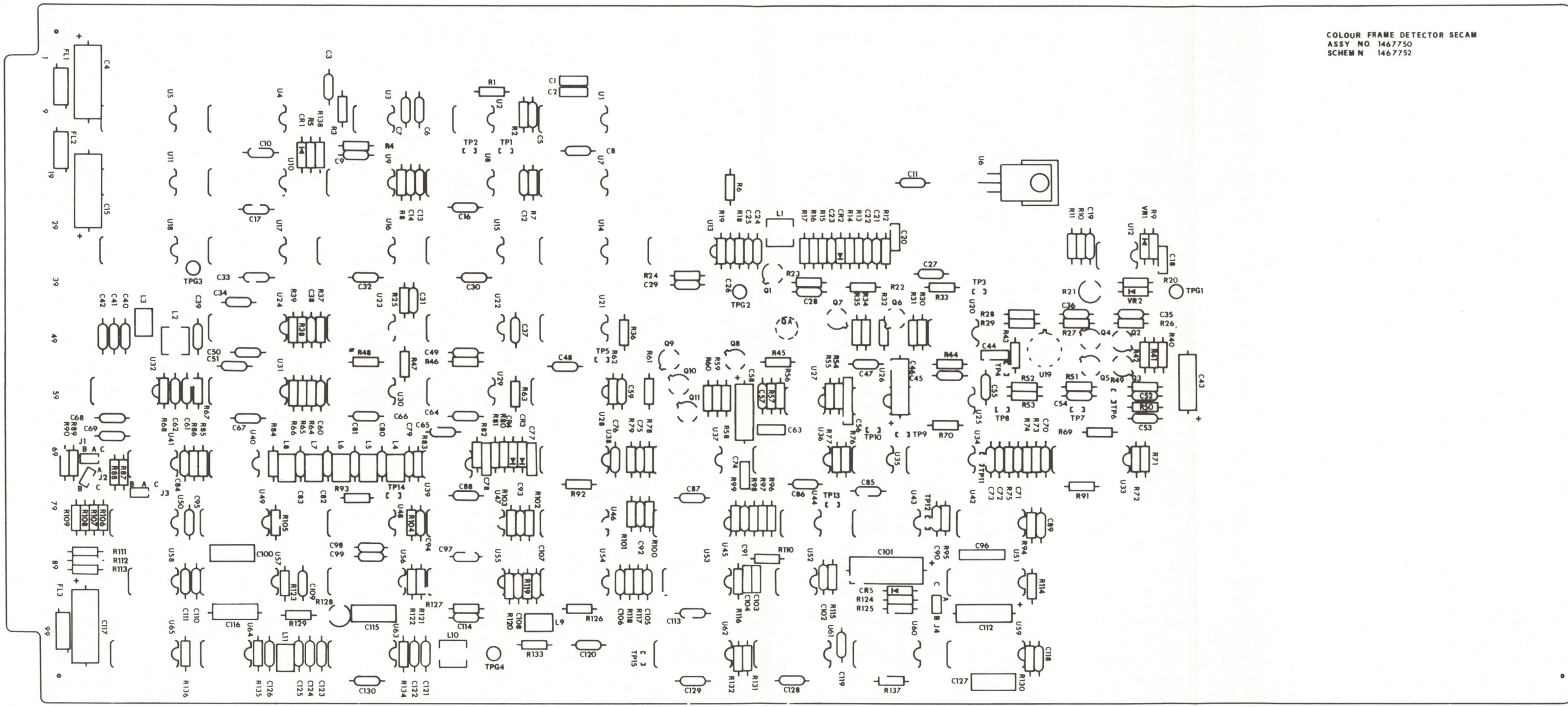
ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
128	066-662	RESISTOR, C.F., 200 OHMS, .25W, 5%	R93	1
129	066-664	510	R36,71,72	3
130	066-665	1K	R5,7,25,67, 111,135	6
131	066-667	3K	R74,75	2
132	066-668	4.7K	R2,17-19,24 70,92,116,126	9
133	066-669	8.2K	R16	1
134				
135	066-673	1M	R81,96	2
136	066-675	1.8K	R68,134	2
137	066-677	68	R88,113	2
138	066-689	2.2K	R20	1
139				
140	066-711	7.5K	R79	1
141	066-712	22K	R22	1
142	066-717	47K	R37,47,48,99, 105-107,137	8
143	066-812	100	R125	1
144				
145	066-814	270	R50,69	2
146	066-819	620	R91	1
147	066-824	1.5K	R29	1
148	066-825	1.6K	R12	1
149	066-826	2K	R61,73,133	3
150				
151	066-830	10K	R1,3,4,8,23,33,35,39,43, 46,56,64-66,76,95,97,98,	26
152			104,110,115,121-123,127, 138	
153	066-837	130	R101	1
154	066-840	680	R118	1
155	066-844	16K	R38	1
156	066-847	33K	R80	1
157				
158	066-849	100K	R94,114,124, 130,131	5
159	066-850	240K	R78	1
160	066-856	15K	R58	1
161	066-938	47	R6,15,30,32,44,82,83,85, 86,108,109,112,119,136	14
162				
163				
164	066-984	160	R11	1
165	076-009	68K	R117	1
166	076-036	RESISTOR, C.F., 12 OHMS, .25W, 5%	R34	1
167				
168	041-793	RESISTOR, COMP., 10M OHMS, .25W, 5%	R10	1
169				
170				
171				
172				

LM-1467750

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA | CODE IDENT NO 92739 | LIST OF MATERIALS | LM-1467750 SHEET 5 OF 5 | REV B

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
173	062-600	RESISTOR, M.F., 11K OHMS, .125W, 1%	R59	1
174	062-601	100K	R123	1
175	062-624	1K	R60	1
176	062-639	3.01K	R45	1
177				
178	062-693	20K	R54,55	2
179	062-836	75	R87,89,90	3
180	062-908	604	R42,52	2
181	062-928	1.1K	R27,51	2
182				
183	062-934	1.62K	R28,40,41,53	4
184	062-936	1.74K	R26,49	2
185	062-962	4.02K	R13	1
186	062-966	4.75K	R9	1
187				
188	062-968	4.99K	R31	1
189				
190	062-980	8.06K	R14	1
191	062-982	9.09K	R57	1
192	062-983	10K	R62,63,102, 103,120	5
193				
194	062-992	15.4K	R100	1
195	066-011	39.2K	R77,132	2
196	066-191	RESISTOR, M.F., 205 OHMS, .125W, 1%	R84	1
197				
198				
199				
200	058-001	RESISTOR, VAR., 50K OHMS, .5W, 20%	R21,128	2
201				
202				
203				
204	014-505	TRANSISTOR, PNP, CD445	Q2,3,6,9,11	5
205	014-581	TRANSISTOR, NPN, CD6150 (2N2369A)	Q1,4,5,7,8,10	6
206				
207	087-388	SILICON COMPOUND, HEAT CONDUCTIVE	REF:U6	-
208	140-437	CONNECTOR, SIGNAL CIRCUIT, PLUG, RECT., 2 SOCKETS	J1-4	4
209	187-055	TERMINAL, WIREWRAP	REF:J1-4	12
210	187-259	TERMINAL, P.C., TESTPOINT	TP1-15	15
211				
212	496-004	NUT, HEX, CAPTIVE WASHER, 4-40	REF:U6	1
213	582-167	TRANSISTOR MTG HDW, INSULATOR, MICA	REF:U6	-
214	582-331	INTEGRATED CIRCUIT, MTG HDW, SOCKET, 16 PIN	REF:U4,18	2
215	582-478	TRANSISTOR MTG. HDW., INSULATOR, SILICONE RUBBER	REF:U6	1
216		NOTES: 3 STATIC SENSITIVE DEVICE, SPECIAL		
217		HANDLING REQUIRED PER HE1-1.		

LM-1467750



Assembly No. 1467750-01B.
Color Framer Detector PWA, A5, SECAM

NOTES: UNLESS OTHERWISE SPECIFIED.

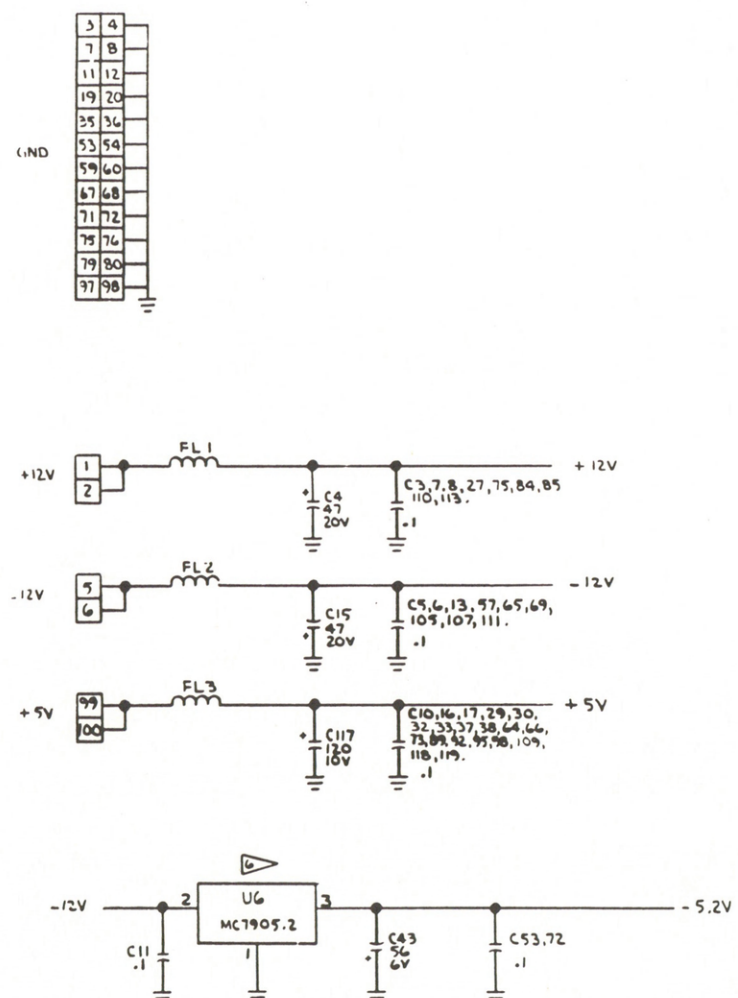
1. ALL RESISTANCE VALUES ARE IN OHMS 1/4W, 5%.
2. ALL CAPACITANCE VALUES ARE IN MICROFARADS.
3. INDUCTORS ARE IN MICROHENRIES.
4. DIODES ARE P/N 013-689
5. TRANSISTORS ARE NPN 014-581
   PNP 014-505
6. (symbol) HEATSINK REQUIRED
7. ALL UNUSED CMOS IC INPUTS ARE TIED TO APPROPRIATE LEVELS.
8. THIS SCHEMATIC REFLECTS PWA 1467750-01.

IC LIST

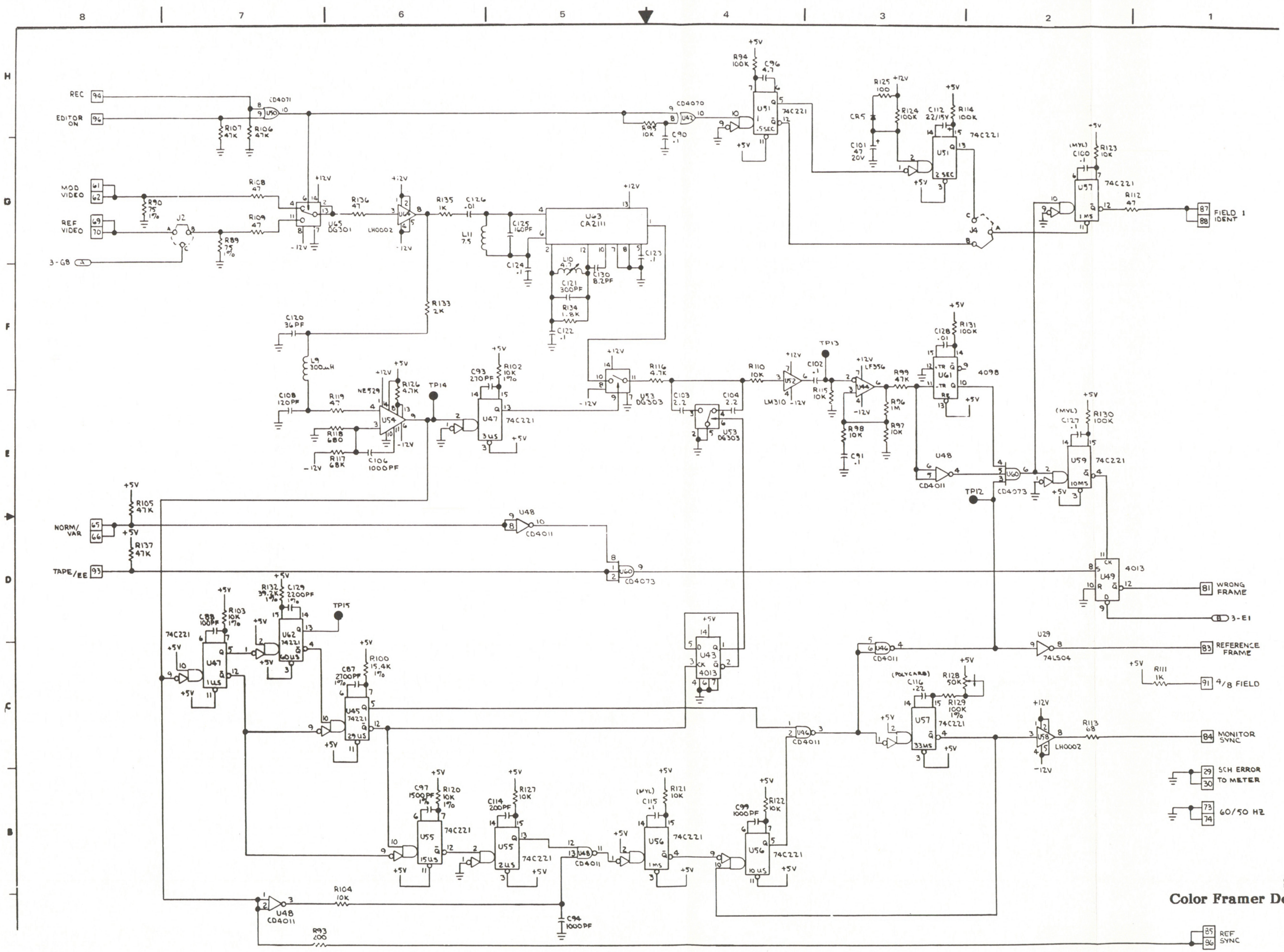
REF DES	AMPEX P/N	VENDOR P/N	GND PIN	POWER PINS +5	-5.2	+12	-12
U13,38,54	000-146	NE529	10	14	—	1	6
U25			14	—	10	1	6
U6	001-892	MC7905-2CT	1	—	3	2	—
U19	586-255	CA3019	—	—	—	—	—
U20.39.40.41.58.64	587-270	LH0002CN	—	—	—	1.2	4.5
U33	587-532	MC10105	1.16	—	8	—	—
U34	589-539	7400	7	14	—	—	—
U65	589-592	DG301CJ	7	—	—	14	8
U32.63	589-799	CA2111AE	7.8	—	—	13	—
U29	589-814	74LS04	7	14	—	—	—
U21	589-847	74S86	7	14	—	—	—
U14	589-931	74LS30	7	14	—	—	—
U1.53	590-086	DG303CJ	7	—	—	14	8
U15.16.17	590-333	74LS163	8	16	—	—	—
U2.3.26.27.35.52	590-448	LM310	—	—	—	7	4
U9	590-449	LM339	—	—	—	3	12
U11	590-494	CD4532	8	16	—	—	—
U46.48	590-506	CD4011BE	7	14	—	—	—
U7.30.42	590-507	CD4070BE	7	14	—	—	—
U60	590-509	CD4073BE	7	14	—	—	—
U8.23.43.49	590-546	CD4013BE	7	14	—	—	—
U5,10	590-563	CD4042BE	8	16	—	—	—

IC LIST

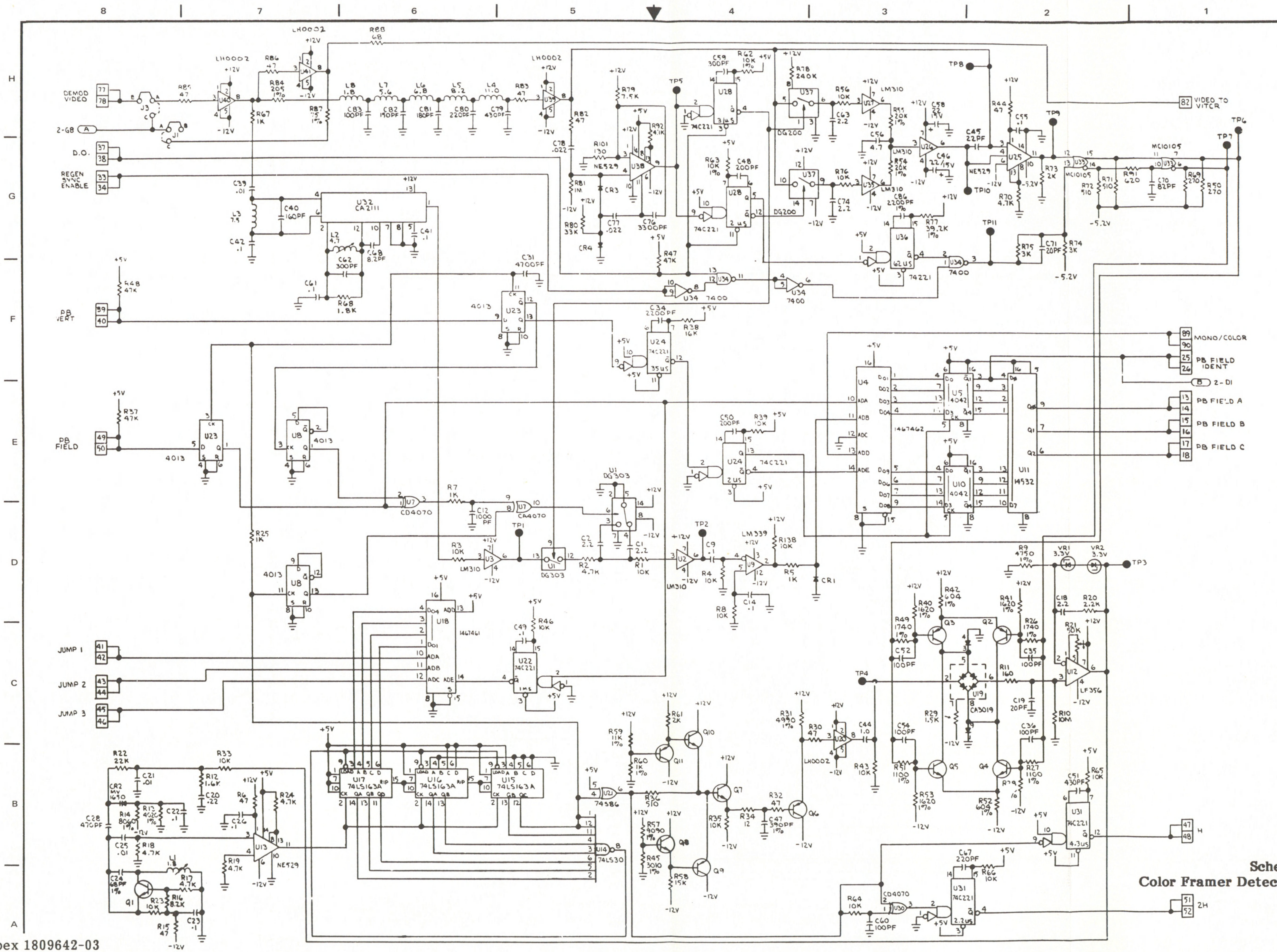
REF DES	AMPEX P/N	VENDOR P/N	GND PIN	POWER PINS +5	-5.2	+12	-12
U22.24.28.31.47. 51.55-57.59	590-572	74C221	8	16	—	—	—
U50	590-593	CD4071BE	7	14	—	—	—
U12.44	590-601	LF356	—	—	—	7	4
U36.45.62	590-616	74221	8	16	—	—	—
U61	590-829	CD4098BE	8	16	—	—	—
U37	590-962	DG200CJ	3	—	—	12	7
U18	1467461	(PROM) 74S288N3	8	16	—	—	—
U4	1467462	(PROM) 74S288N3	8	16	—	—	—



Schematic No. 1467752—.
Color Framer Detector PWA, A5, SECAM
(Sheet 1 of 3)



Schematic No. 1467752—.
Color Framer Detector PWA, A5, SECAM
(Sheet 2 of 3)



Schematic No. 1467752—.
Color Framer Detector PWA, A5, SECAM
(Sheet 3 of 3)

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02
1					
2					
3	1467065	SCHEMATIC		-0	(A)
4					
5	1400004-01	EJECTOR, PWB		1	1
6	1467008-AN	LABEL		1	1
7	1467009-01	SHIELD		1	1
8	250-155	BUMPER, PAD, SYNTHETIC RUBBER		3	3
9	283-105	SPACER, PLAIN, .140 ID X .250 OD X .125 LG		1	1
10	471-063	SCREW, MACH., PAN HD., XREC DR., #4-40 X .438 LG		1	1
11	474-500	SCREW, MACH., PAN HD., XREC DR., #4-40 X .312 LG		7	7
12	502-002	WASHER, LOCK, HELICAL SPRING, #4		1	1
13	506-011	WASHER, BOWED		1	1
14					
15					
16					
17	1467400-04	PROM, CONTROL (74LS471) 3	U46	1	1
18	1467401-01	PROM, FIELD (74LS288)	U23	1	1
19	1467402-01	PROM, HORIZ. (TBP28L22N)	U29	1	1
20	1467403-01	PROM, TACH. (2516)	U39	1	1
21	1467404-02	PROM, VERT. (2516) 3	U22	1	1
22					
23					
24					
25					
26	064-653	CAPACITOR, CER., MONO, 0.1uF, 50V, 20%	C1-9,14-20,22,24, 27-32,34,35,36,39, 40-46,48,49,51	38	38
27					
28					
29					
30	064-668	300pF, 100V, 5%	C23	1	1
31	064-693	390pF, 50V, 5%	C21	1	1
32	064-703	560pF, 50V, 5%	C25	1	1
33	064-757	.027uF, 50V, 5%	C50	1	1
34	064-791	500pF, 50V, 5%	C26	1	1
35	064-817	CAPACITOR, CER., MONO, 250pF, 100V, 5%	C12	1	1
36					
37					

LM-1467063

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467063 SHEET 2 OF 3	REV D

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02
38	069-090	CAPACITOR, POLY, DIPPED, .001uF, 50V, 5%	C38	1	1
39	069-103	CAPACITOR, POLY, DIPPED, .0047uF, 50V, 5%	C33	1	1
40	069-109	CAPACITOR, POLY, DIPPED, .0022uF, 50V, 5%	C11	1	1
41					
42	069-113	CAPACITOR, POLY, DIPPED, 0.1uF, 50V, 5%	C37	1	1
43					
44					
45					
46					
47	037-186	CAPACITOR, TANT., 120uF, 10V, 10%	C47	1	1
48	037-746	CAPACITOR, TANT., 47uF, 20V, 10%	C10,13	2	2
49					
50					
51					
52					
53	051-770	FERRITE - CHOKE	FL1-3	3	3
54					
55					
56					
57					
58	001-054	INTEGRATED CIRCUIT, 74LS21	U6	1	1
59					
60	589-150	74LS03	U52	1	1
61	589-813	74LS00	U3,8,10,12,20, 51,53-55,58,60	11	11
62	589-814	74LS04	U4,19,26,43, 44,59	6	6
63					
64	589-816	74LS10	U2,9	2	2
65	589-820	74LS74	U1,11,27,31, 32,34,37,49, 50,56	10	10
66					
67	589-824	74LS153	U48	1	1
68					
69	589-831	74LS175	U24,30	2	2
70	589-933	74LS161A	U7,15,16	3	3
71	589-934	74LS221	U17,18,33,41	4	4
72					
73	589-935	74LS393	U14,28,38,40	4	4
74	590-329	74LS123	U57	1	1
75	590-332	74LS02	U5,13,25,42	4	4
76	590-335	74LS273	U21,47	2	2
77					
78	590-736	LM319	U35	1	1
79	590-620	INTEGRATED CIRCUIT, 74LS86	U45	1	1
80					
81					
82					

LM-1467063

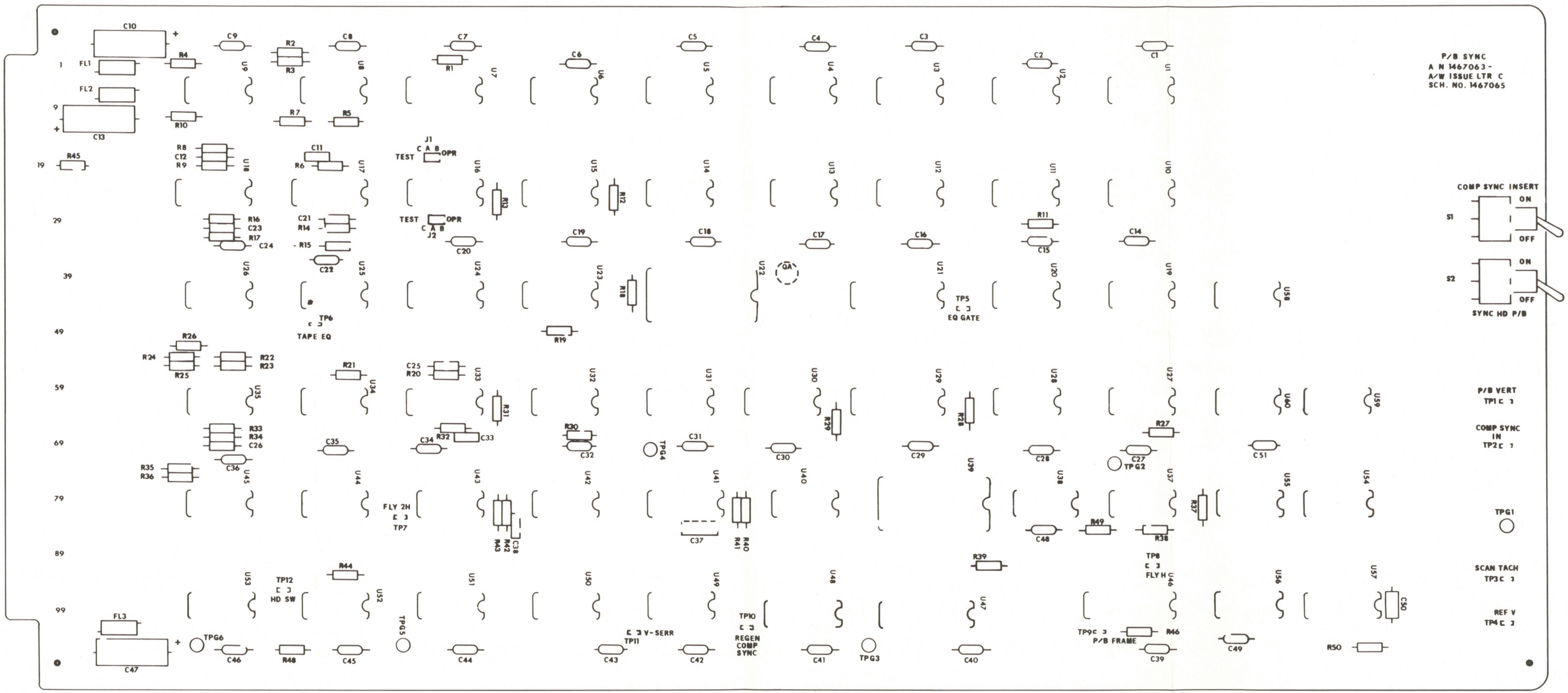
AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467063 SHEET 3 OF 3	REV D

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02
83	066-665	RESISTOR, C.F., 1K OHMS, .25W, 5%	R18,19,2 ,28, 39,44,46,48	8	8
84					
85	066-668	4.7K	R24,25,26	3	3
86	066-711	7.5K	R22	1	1
87					
88	066-830	10K	R1,5,6,8,11, 12,13,15,16,27,	18	18
89			29,30,31,37, 38,40,42,43		
90					
91	066-843	6.2K	R23	1	1
92	066-856	15K	R41	1	1
93					
94	066-928	2.4K	R20	1	1
95	066-938	RESISTOR, C.F., 47 OHMS, .25W, 5%	R2,3,4,7,10, 35,36,45,49	9	9
96					
97					
98					
99					
100	062-601	RESISTOR, M.F., 100K OHMS, .125W, 1%	R14,50	2	2
101	062-898	432	R33	1	1
102	062-985	10.7K	R32	1	1
103	062-934	1.62K	R34	1	1
104	062-994	16.2K	R17	1	1
105					
106	066-601	RESISTOR, M.F., 10.2K OHMS, .125W, 1%	R9	1	1
107					
108					
109					
110					
111	120-967	SWITCH, TOGGLE, SPDT	S1,2	2	2
112	140-437	JACK, SHORTING, 2 CONTACT	J1,2	2	2
113	187-259	TERMINAL, P.C. TEST POINT	TP1-12	12	12
114	187-055	TERMINAL, WIREWRAP	REF:J1,2,(A,B,C)	6	6
115	582-148	I.C., MTG. HDW., SOCKET, 24 PINS	REF:U22,39	2	2
116	582-331	I.C., MTG. HDW., SOCKET, 16 PINS	REF:U23	1	1
117	582-333	I.C., MTG. HDW., SOCKET, 20 PINS	REF:U29,46	2	2

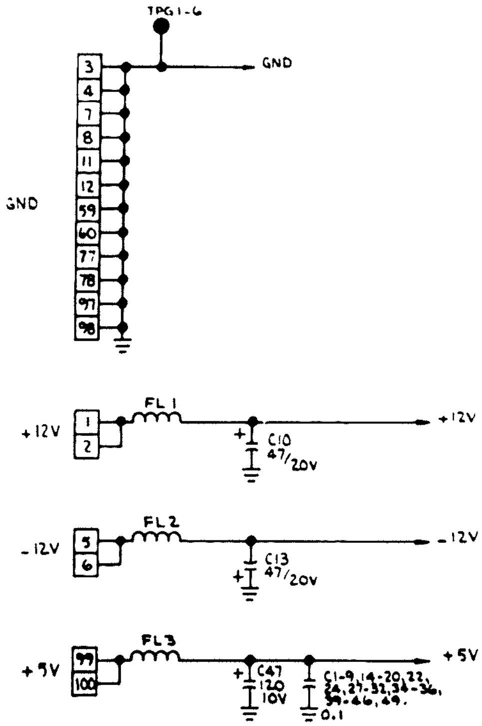
NOTES:

3 ▷ STATIC SENSITIVE, SPECIAL HANDLING REQUIRED PER AMPEX STD HE1-1.

LM-1467063



Assembly No. 1467063-02D.
Playback Sync PWA, A6



NOTES: UNLESS OTHERWISE SPECIFIED.

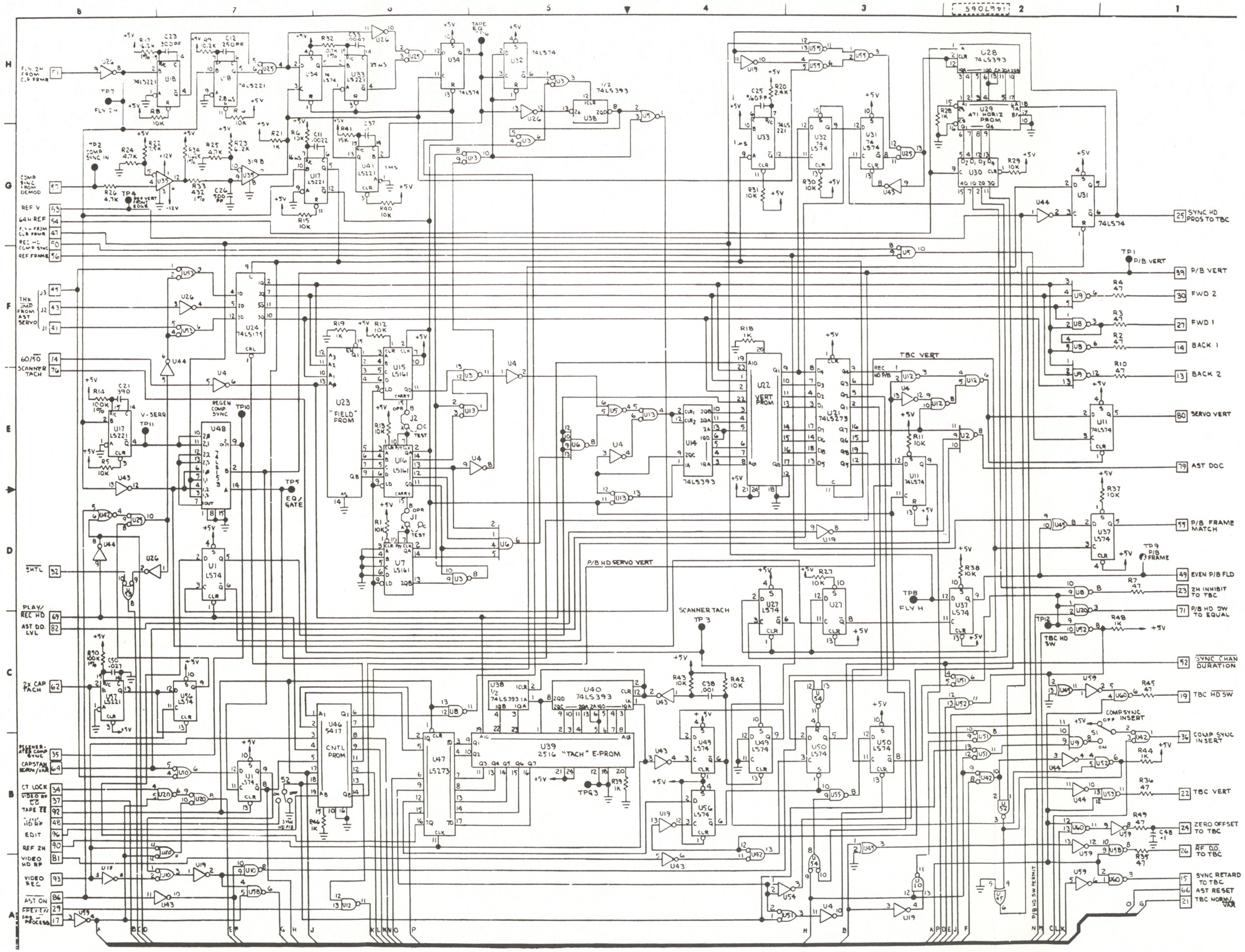
1. ALL RESISTANCE VALUES ARE 1/4W, 5%.
2. ALL CAPACITANCE VALUES ARE IN MICROFARADS
3. THIS SCHEMATIC REFLECTS PWA 1467063-02.

REFERENCE DESIGNATION	
LAST USED	NOT USED
C50 FL3 J2 R50 S2 TP12 U57	R47 U36

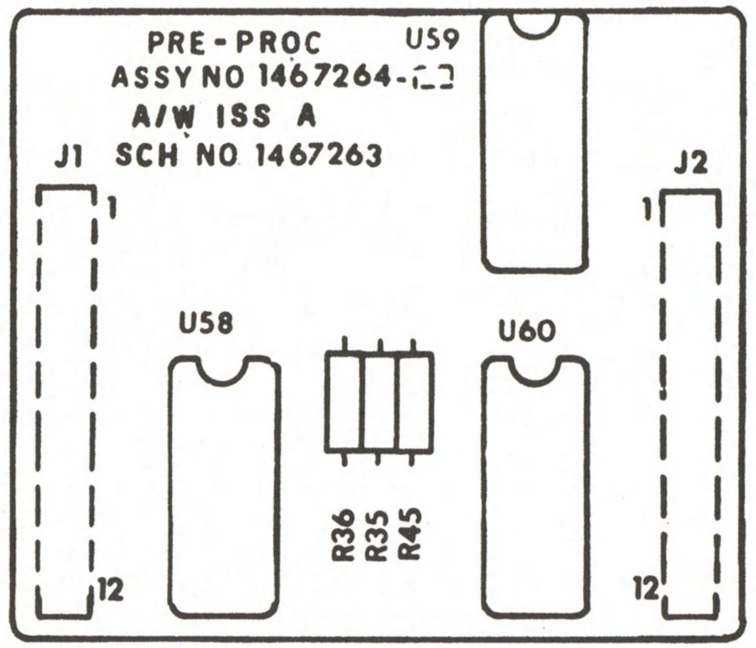
I.C. LIST

REF DES	AMPEX P/N	VENDOR P/N	VOLTAGE PIN	GROUND PIN
U1,11,27,31,32,34 37,49,50,56.	589-820	74LS74	+5V (14)	7
U2,9	589-816	74LS10	+5V (14	7
U3,8,10,12,20,51 53-55,58,60	589-813	74LS00	+5V (14)	7
U4,19,26,43,44,59	589-814	74LS04	+5V (14)	7
U5,13,25,42	590-332	74LS02	+5V (14)	7
U6	001-054	74LS21	+5V (14)	7
U7,15,16	589-993	74LS161A	+5V (16)	8
U14,28,38,40	589-935	74LS393	+5V (14)	7
U17,18,33,41	589-934	74LS221	+5V (14)	7
U21,47	590-335	74LS273	+5V (20)	10
U22	1467404	2516	—	—
U23	1467401	74LS288	+5V (16)	8
U24,30	589-831	74LS175	+5V (16)	8
U29	1467402	TBP28L22N	+5V (20)	10
U35	590-736	LM319	+12V(11)-12V(6)	1
U39	1467403	2516	—	—
U45	590-620	74LS86	+5V (14)	7
U46	1467400	74LS471	+5V (20)	10
U48	589-824	74LS153	+5V (16)	8
U52	589-150	74LS03	+5V (16)	8
U57	590-329	74LS123	+5V (20)	10

Schematic No. 1467065A. Playback Sync PWA, A6 (Sheet 1 of 2)

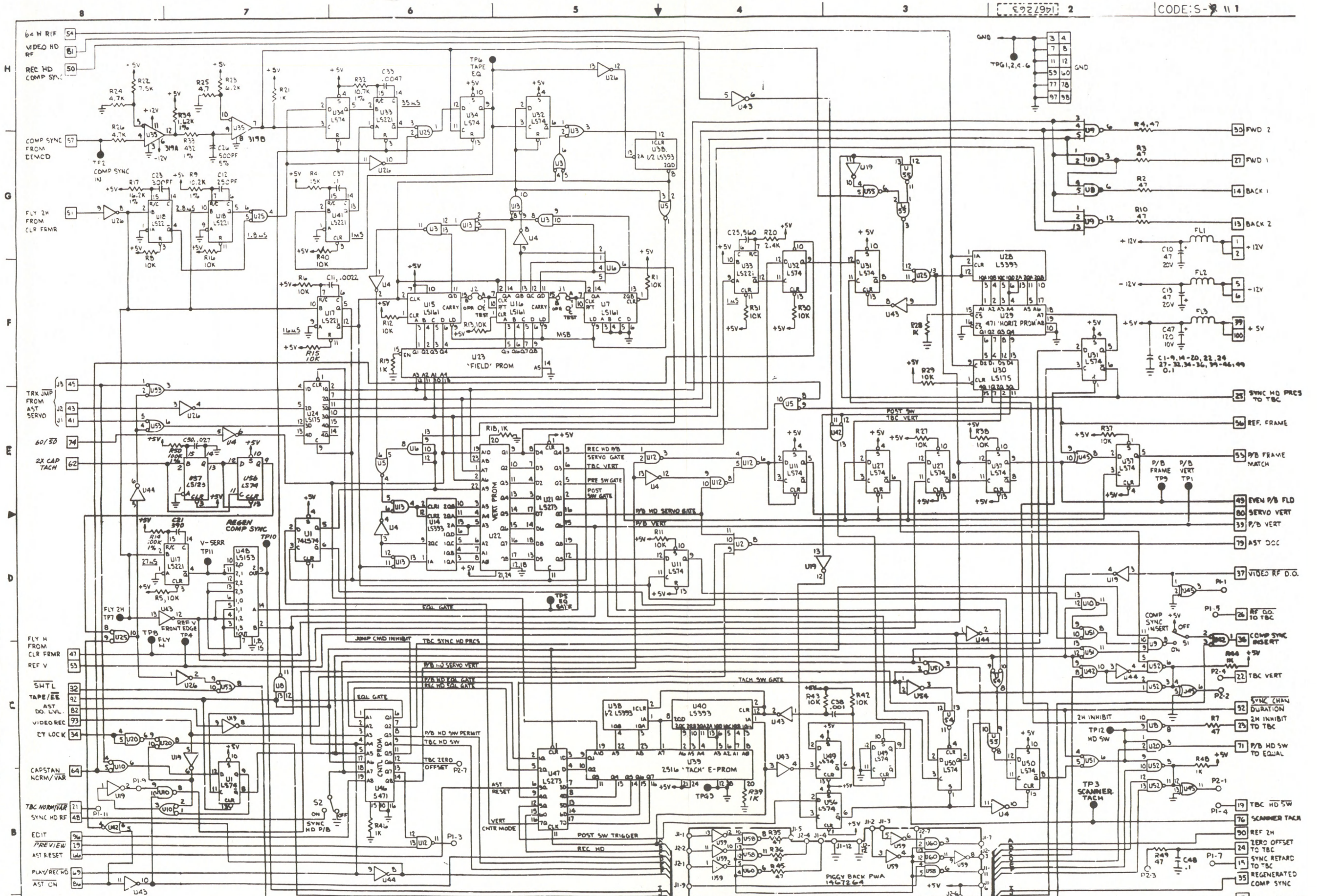


Schematic No. 1467065A.
Playback Sync PWA, A6
(Sheet 2 of 2)



3	6	066-938	RESISTOR, CC, 47Ω, .25W, 5%	R35,36,45
2	5	589-813	INTEGRATED CIRCUIT, 74LS00	U58,60
1	4	589-814	INTEGRATED CIRCUIT, 74LS04	U59
2	3	1467259-AF	CONNECTOR STRIP	J1,2
REF	2	1467263	SCHEMATIC	
	1			
01	ITEM NO	PART NUMBER	DESCRIPTION	

Assembly No. 1467264-01—. Playback Sync w/Preprocessing Piggyback PWA



NOTES: UNLESS OTHERWISE SPECIFIED.
1. RESISTANCE VALUES ARE IN OHMS, 1/4W, 5%
2. CAPACITANCE VALUES ARE IN MICROFARADS

I.C. LIST

REF DES.	U57	U1,11,27,31,32,34,37,49,50,56	U2,9	U3,8,10,12,51,53-55,20.	U4,19,26,43,44	U5,13,25,42,	U6	U7,15,16	U14,28,38,40	U17,18,33,41	U52
AMPEX P/N	590-329	589-820	589-816	589-813	589-814	590-332	587-795	589-993	589-935	589-934	589-150
VENDOR P/N	74LS123	74LS74	74LS10	74LS00	74LS04	74LS02	74LS21	74LS161A	74LS393	74LS221	74LS03
VOLTAGE(PIN)	+5V (16)	+5V (14)	+5V (14)	+5V (14)	+5V (14)	+5V (14)	+5V (14)	+5V (16)	+5V (14)	+5V (16)	+5V (14)
GROUND(PIN)	(8)	(7)	(7)	(7)	(7)	(7)	(7)	(8)	(7)	(8)	(7)
REF DES		U21,47	U22	U23	U24,30	U29	U35	U39	U45	U46	U48
AMPEX P/N		590-335	1467404	1467401	589-831	1467402	590-756	1467403	590-620	1467400	589-824
VENDOR P/N		74LS273	2516	74LS289	74LS175	TBP29L22N	LM319	2516	74LS86	74LS471	74LS153
VOLTAGE(PIN)		+5V (20)		+5V (16)	+5V (16)	+5V (20)	+12V(11); -12V(6)		+5V (14)	+5V (20)	+5V (16)
GROUND(PIN)		10		(8)	(8)	(10)	(1)		(7)	(10)	(8)

REFERENCE DESIGNATION	
LAST USED	NOT USED
C50	
FL3	
R50	R47
J2	
TP12	
U57	U36
S2	

Schematic No. 1467263—. Playback Sync with Preprocessing Piggyback PWA

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05
1								
2								
3	1467072	SCHEMATIC		N	N	N	N	N
4								
5	1400004-01	EJECTOR, PWB		1	1	1	1	1
6	1467008-AP	LABEL		1	1	1	1	1
7	1467009-01	SHIELD		1	1	1	1	1
8	250-155	BUMPER, PAD, SYNTHETIC RUBBER		3	3	3	3	3
9	283-105	SPACER, PLAIN, .140ID X .250 OD X .125 LG		1	1	1	1	1
10	471-063	SCREW, MACH, PAN HD, XREC, 4-40 X .438		1	1	1	1	1
11	474-500	SCREW, MACH, PAN HD, XREC, 4-40 X .312		7	7	7	7	7
12	502-002	WASHER, LOCK #4		1	1	1	1	1
13	506-011	WASHER, BOWED		1	1	1	1	1
14								
15								
16								
17	1467410	PROM, ACCUMULATOR	U15	1	1	-01	-01	-01
18	1467411	↑ MUX	U24	1	1	-01	-01	-01
19	1467412	RESET	U18	1	1	-01	-02	-02
20	1467413	SPEED	U27	1	1	-01	-02	-02
21	1467414	TACH	U73	1	1	-01	-01	-01
22	1467415	TONE	U51	1	1	-01	-01	-01
23	1467416	↓ MODE	U86	1	1	-01	-02	-02
24	1467417	PROM, TIMER	U33	1	1	-01	-01	-01
25								
26								
27								
28	064-062	CAPACITOR, CER., MONO, 0.1uF, 100V, 20%	C8-15,17,18,19	11	11	11	11	11
29	064-314	CAPACITOR, CER, MONO, 1uF, 50V, 20%	C130-140,142, 143,144	14	14	14	14	14
30								
31								
32	064-653	CAPACITOR, CER, MONO, 0.1uF, 50V, 20%	C2,3,4,6,20,22,25, 27,37,47,49,50,	50	50	50	50	50
33		53-56,58,64,65,67,68,78,79,82,83,85, 86,96-103,106,107,108,110,112-116,						
34		120,122,123,129,145,147						
35								
36								
37								

LM-467070

AMPEX Ampex Corporation	92739	LIST OF MATERIALS	LM 1467070	U

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	[illegible]	-0[illegible]	-0[illegible]	[illegible]	-05
38	064-777	CAPACITOR, CER, MONO, 560pF, 50V, 1%	C128	1	1	1		1
39	064-726	270pF, 50V, 1%	C124	1	1	1		1
40	064-771	430pF, 50V, 1%	C118	1	1	1		1
41								
42								
43								
44	064-746	.047uF, 50V, 5%	C7,63	2	2	2		2
45	064-748	.068uF, 50V, 5%	C21,23,146	3	3	3		3
46	064-753	.015uF, 50V, 5%	C1	1	1	1		1
47	064-754	.01uF, 50V, 5%	C5,30-34,40,44,48, 51,52,57,59,62,72, 73,87,90,93,109,111, 117,126,127,151	-	25	25	25	25
48								
49								
50	064-754	.01uF, 50V, 5%	C5,31-34,40,44, 48,51,52,57,59, 62,72,73,87,90, 93,109,111,117, 126,127,151	25	-	-		-
51								
52								
53	064-755	.039uF, 50V, 5%	C77,121	2	2	2	2	2
54				1	1	1		1
55	064-750	1.0uF, 50V, 20%	C38	1	1	1		1
56								
57								
58	064-775	20pF, 50V, ±.5pF	C74,92	2	2	2	2	2
59	064-762	100pF, 50V, 5%	C29,35,41,42,60,70, 89,125	8	8	8	8	8
60	064-764	470pF, 50V, 5%	C36	1	1	1		1
61								
62								
63								
64								
65	064-767	4700pF, 50V, 5%	C28,71,148		3	3		3
66	064-704	1000pF, 50V, 5%	C43,61 66,69,75, 84,104,105	8	8	8	8	8
67	064-767	4700pF, 5%	C28,30,71,148	4	-	-		-
68	064-795	6800pF, 20%	C94	1	1	1		1
69				1	1	1		1
70	064-770	3900pF, 50V, 5%	C76	1	1	1		1
71	064-705	2200pF, 100V, 5%	C26	1	1	1		1
72	064-769	1800pF, 100V, 5%	C81	1	1	1		1
73	064-765	CAPACITOR, CER, MONO, 1500pF, 50V, 20%	C80,91,95,119	4	4	4	4	4
74								
75								
76								
77	037-729	CAPACITOR, TANT, 8.2uF, 20V, 10%	C149	1	1	1		1
78	037-186	CAPACITOR, TANT, 120uF, 10V, 10%	C150	1	1	1		1
79								
80	037-746	47uF, 20V,	C24,39	2	2	2	2	2
81	037-991	CAPACITOR, TANT, 22uF, 15V, 10%	C16,45,46,141	4	4	4	4	4
82								

LM-1467070

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM- 1467070 SHEET 3	REV U

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05
83	013-358	DIODE, ZENER, 5.1V (IN751A)	VR2,3,4	3	3	3	3	3
84	013-599	DIODE, SWITCHING	CR1-13,19-27	22	22			-
85	013-599	DIODE, SWITCHING	CR1-8,11-13, 19-27		-	20	20	20
86	013-650	DIODE, GENERAL	CR14-18	5	5	-		-
87	013-332	DIODE, ZENER, 4.7V (IN750A)	VR1	1	1	1		1
88	013-650	DIODE, GENERAL	CR9,10,14-18		-	7	7	7
89								
90								
91	590-447	INTEGRATED CIRCUIT, LM324	U1,7, 11,21, 22,47,78	7	7	7	7	7
92	002-947	74HC74 (3)	U77					1
93	587-757	LS175	U17,23,72	3	3	3	3	3
94								
95	589-813	74LS00	U35,36,49,67, 76,87	6	6	6	6	6
96	589-814	74LS04	U28,39,48,57, 61,63,88	7	7	7	7	7
97								
98	589-816	74LS10	U45,89	2	2	2	2	2
99								
100	589-820	74LS74	U20,29,37,43, 55,60,64,70, 79	10	10	10	10	9
101								
102	589-833	74LS197	U66	1	1	1		1
103	589-933	74LS161	U16,26,52,53, 59	5	5	5	5	5
104	589-932	74LS113	U40	1	1	1		1
105	589-934	74LS221	U5,31,56,75, 85	5	5	5	5	5
106	589-935	74LS393	U34,42,44,74	4	4	4	4	4
107	589-526	74LS196	U65	1	1	1		1
108	590-536	7406	U6	1	1	1		1
109								
110	590-335	74LS273	U25,32	2	2	2	2	2
111	590-339	74LS02	U19,38,41,46, 54,58,71,90	8	8	8	8	8
112								
113	590-450	CD4053 (3)	U4,12,82	3	3	3	3	3
114	590-583	TL084	U2,8,30,83,84	5	5	5	5	5
115								
116	590-606	74LS283	U69,91	2	2	2	2	2
117	590-620	74LS86	U13,62,68	3	3	3	3	3
118	590-724	CD4051 (3)	U3,9,80,81	4	4	4	4	4
119								
120	590-734	INTEGRATED CIRCUIT, DAC-08	U14,50	2	2	2	2	2
121								
122								
123								
124								
125	051-770	FERRITE-CHOKE	FL1-3	3	3	3	3	3
126								
127								

LM- 1467070

AMPEX | Ampex Corporation, Redwood City, California	CODE IDENT NO. 92739	LIST OF MATERIALS	LM-1467070 SHEET 4	U

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05
128								
129								
130								
131								
132								
133	066-652	RESISTOR. C.F., 470K OHM, .25W, 5%	R163	1	1	1	1	1
134	066-825	1.6K	R8	1	1	1	1	1
135	066-664	510	R51,52	2	2	2	2	2
136								
137	066-665	1K	R7,43,45,47,49, 57,58,99,100,119,	25	25	25	25	25
138			123,130,140,160, 171,179,180,188,					
139			205,215,229-232, 238					
140	066-668	4.7K	R14,33,34,96, 104,184,202,218	8	8	8	8	8
141	066-670	9.1K	R48,237	2	2	2	2	2
142								
143	066-673	1MEG	R15,30,87,98, 108,129,148,207	8	8	8	8	8
144	066-717	47K	R41,65,66,75, 77,88,101,111,	12	12	12	12	12
145			126,127,149,151					
146								
147	066-812	100	R36,38,117,118, 170,197	6	6	-	-	-
148	066-812	100	R36-38,117,118, 170,197	-	-	7	7	7
149	066-815	300	R37	1	1	-	-	-
150	066-818	470	R32,196	2	2	2	2	2
151	066-823	1.1K	R31,195	2	2	2	2	2
152								
153	066-830	10K	R1,6,16,18,21,22,24, 25,29,35,42,63,74,76	48	48	48	48	51
154			82,83,86,97, 109,112, 113,124,131,132,134,135,					
155			137,138,139,154,158, 159,161,172,173,					
156			174,175,177,178,183, 185,186,209,221,222,					
157			225,226,227,241,242, 243					
158								
159	066-832	18K	R46,236	2	2	2	2	2
160	066-839	560	R92,115,116,156, 157,181,228	7	7	7	7	7
161								
162								
163	066-842	5.1K	R136	1	1	1	1	1
164	066-843	6.2K	R155,198	2	2	2	2	2
165	066-845	24K	R182	1	1	1	1	1
166								
167	066-846	30K	R219	1	1	1	1	1
168	066-847	33K	R2,150,176	3	3	3	3	3
169								
170								
171	066-849	RESISTOR, C.F., 100K OHM, .25W, 5%	R3,4,5,28,59,78, 103, 133,152, 191,204,206,217	13	13	13	13	13
172								

LM-1467070

AMPEX Ampex Corporation Redwood City, California	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467070 SHEET 5	U

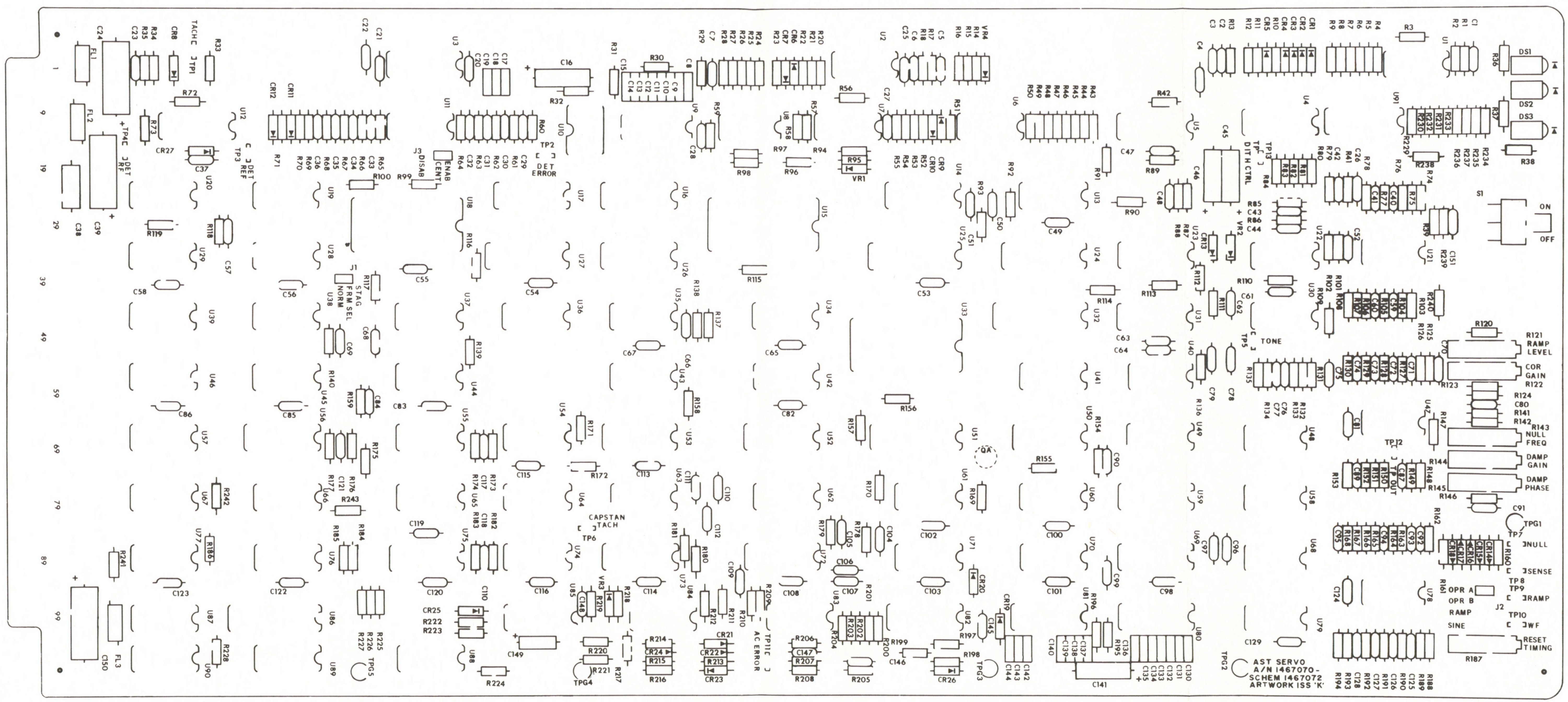
ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05
173								
174	066-[illegible]53	RESISTOR, C.F., [illegible]00K OHM, .25W, 5%	R23,147	2	2	2	2	2
175	066-[illegible]56	15K	R190,201,208	3	3	3	3	3
176	066-865	12K	R211	1	1	1	1	1
177	066-858	4.7M	R27,199,203	3	3	3	3	3
178	066-860	39K	R50,235	2	2	2	2	2
179	066-86[illegible]	51K	R114,120,220, 223	4	4	4	4	4
180	066-868	120K	R189	1	1	1	1	1
181	066-873	20K	R20,26,91,93, 146,210	6	6	6	6	6
182	066-712	22K	R233	1	1	1	1	1
183	066-912	82K	R64	1	1	1	1	1
184								
185	066-913	220K	R194,200	2	2	2	2	2
186								
187	066-958	75K	R44,224,234	3	3	3	3	3
188								
189	066-974	150K	R106,125	2	2	2	2	2
190								
191								
192	076-046	36K	R90	1	1	1	1	1
193	076-009	68K	R89	1	1	1	1	1
194	076-012	330K	R17,105,128,169	4	4	4	4	4
195	076-013	680K	R162	1	1	1	1	1
196	076-014	1.5M	R141	1	1	1	1	1
197	076-047	110K	R72,239,240	3	3	3	3	3
198	076-051	300K	R107	1	1	1	1	1
199	076-053	390K	R142	1	1	1	1	1
200	076-057	RESISTOR, C.F., 910K OHM, .25W, 5%	R39	1	1	1	1	1
201								
202								
203								
204								
205								
206								
207	062-966	RESISTOR, M.F., 4.75K OHM, .125W, 1%	R84	1	1	1	1	1
208	062-601	RESISTOR, M.F., 100K OHM, .125W, 1%	R53,55,60,67-71,73, 79,85,102,153,165	14	14	14	14	14
209	062-643	2K	R9,166,212,213, 214,216	6	6	6	6	6
210	062-624	1K	R54,95	2	2	2	2	2
211	062-983	10K	R10,13	2	2	2	2	2
212	066-733	49.9K	R11	1	1	1	1	1
213	066-010	37.4K	R167	1	1	1	1	1
214	066-017	75K	R164	1	1	1	1	1
215	066-014	47.5K	R80,81	2	2	2	2	2
216	066-034	475K	R56,61,62,94	4	4	4	4	4
217	066-389	RESISTOR, M.F., 90.9K OHM, .125W, 1%	R12	1	1	1	1	1

LM-1467070

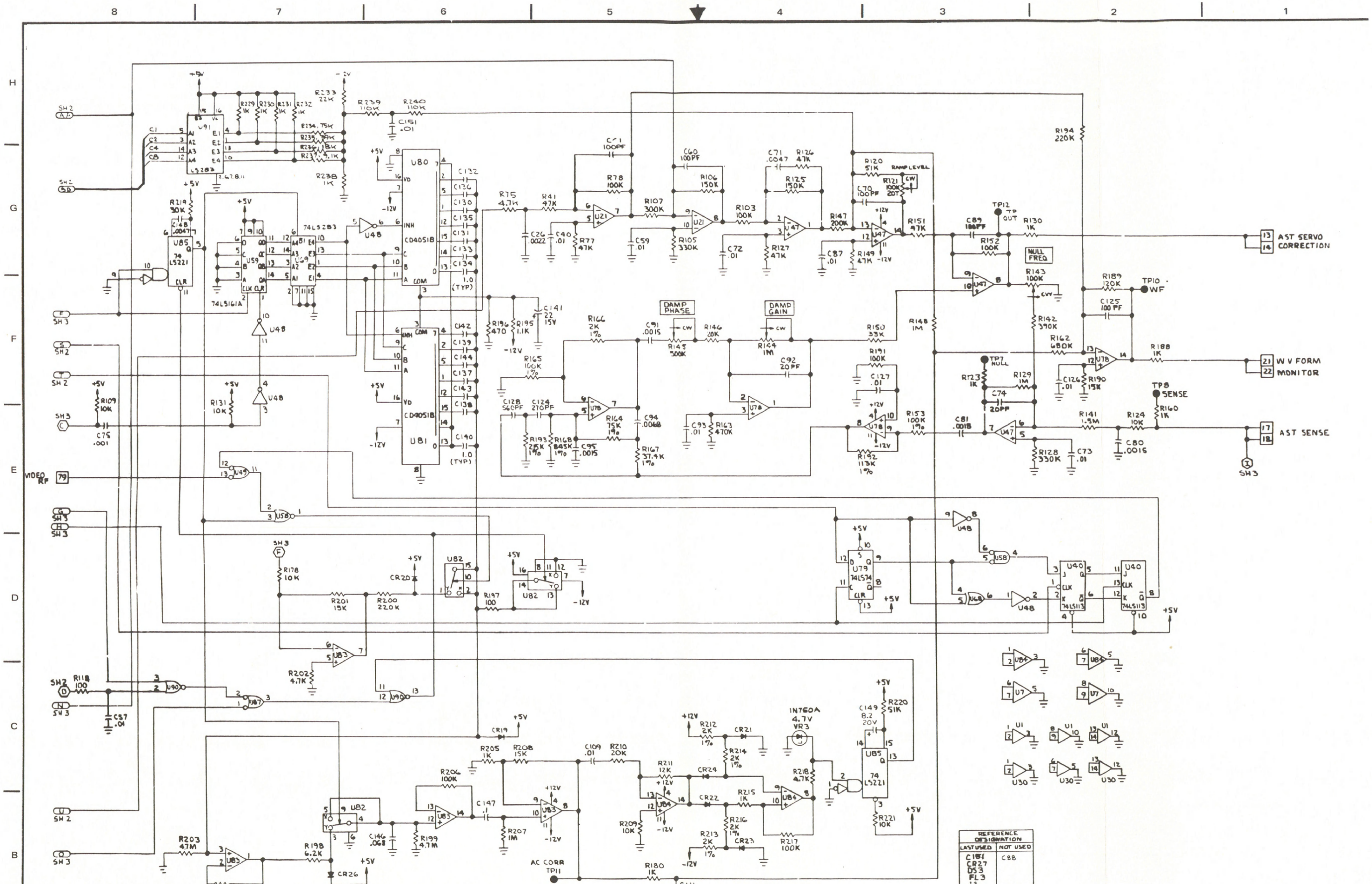
AMPEX | Ampex Corporation REDWOOD CITY CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467070	U

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05
218	076-351	RESISTOR, M.F., 113K OHM, .125W, 1%	R192	1	1	1		1
219	076-362	RESISTOR, M.F., 215K OHM, .125W, 1%	R193	1	1	1		1
220	076-386	RESISTOR, M.F., 845K OHM, .125W, 1%	R168	1	1	1		1
221	066-763	RESISTOR, M.F., 221K OHM, .125W, 1%	R110	1	1	1		1
222								
223								
224								
225								
226								
227								
228								
229	058-937	RESISTOR, VAR, CERMET, 1M OHM, .75W, 10% 20 TURN	R144	1	1	1		1
230	058-985	500K .75W, 10% 20 TURN	R145	1	1	1		1
231								
232								
233	058-343	10K .75W, 10% 20 TURN	R122	1	1	1		1
234	058-696	100K .75W, 10%	R121,143	2	2	2	2	2
235	058-388	RESISTOR, VAR, CERMET, 50K OHM, .75W, 1%	R187	1	1	1		1
236								
237	120-967	SWITCH, TOGGLE, SPDT	S1	1	1	1		1
238								
239	187-055	TERMINAL, WIREWRAP	REF:J1(3), J2(8),J3(3)	14	14	14	14	14
240	140-437	PLUG JUMPER	J1,2,3	3	3	3	3	3
241								
242								
243	187-259	TERMINAL, PC, TEST POINT	TP1-13	13	13	13	13	13
244								
245								
246	582-159	INTEGRATED CIRCUIT MTG HDW, 24 PINS	REF:U15,18,33	3	3	3	3	3
247	582-331	16 PINS	REF:U73	1	1	1	1	1
248	582-332	18 PINS	REF:U24,27	2	2	2	2	2
249	582-393	8 PINS	REF:U10	1	1	1	1	1
250	582-333	INTEGRATED CIRCUIT MTG HDW, 20 PINS	REF:U51,86	2	2	2	2	2
251								
252								
253	581-834	L.E.D., VISIBLE GREEN,	DS1,2	2	2	2	2	2
254	581-869	L.E.D., VISIBLE YELLOW	DS3	1	1	1	1	1
255								
256								
257								
258								
259		3 STATIC SENSITIVE. SPECIAL HANDLING						
260		REQUIRED PER HE1-1.						
261								
262								

LM-1467070



Assembly No. 1467070-05U.
AST Servo PWA, A7



NOTES: UNLESS OTHERWISE SPECIFIED.

1. ALL RESISTANCE VALUES ARE IN OHMS, 1/4 W, 5%.
2. ALL CAPACITANCE VALUES ARE IN MICROFARADS.
3. ALL DIODES ARE P/N 013-599.
4. THIS SCHEMATIC REFLECTS PWA 1467070-05.

5 ▷ DISPLAY USED FOR FACTORY TEST ONLY.

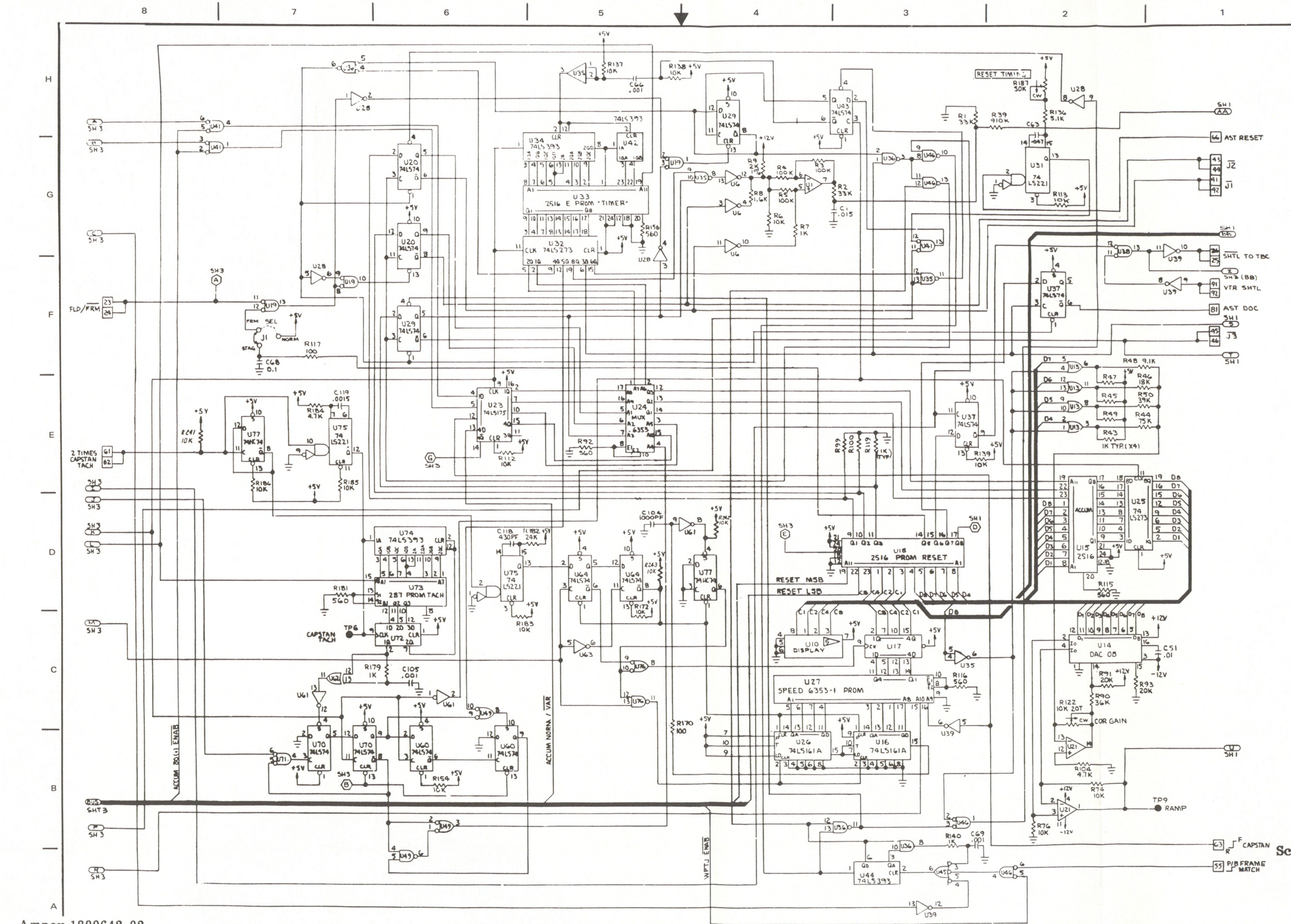
I.C. LIST

REF DES	U28,39,48 57,61,63,88	U2,8,30 83,84	U34,42,44,74	U35,36,49, 67,76,87	U45,89	U40	U65	U66	U69,91	U3,9,80,81	U77
AMPEX P/N	589-814	590-583	589-935	589-813	589-816	589-932	589-526	589-833	590-606	590-724	002-947
VENDOR P/N	74LS04	TL084	74LS393	74LS00	74LS10	74LS113	74LS196	74LS197	74LS283	CD4051	74HC 74
VOLTAGE	(14)+5V	—	(14)+5V	(14)+5V	(14)+5V	(14)+5V	(14)+5V	(14)+5V	(16)+5V	(16)+5V	(14)+5V
GND	7	—	7	7	7	7	7	7	8	7	7

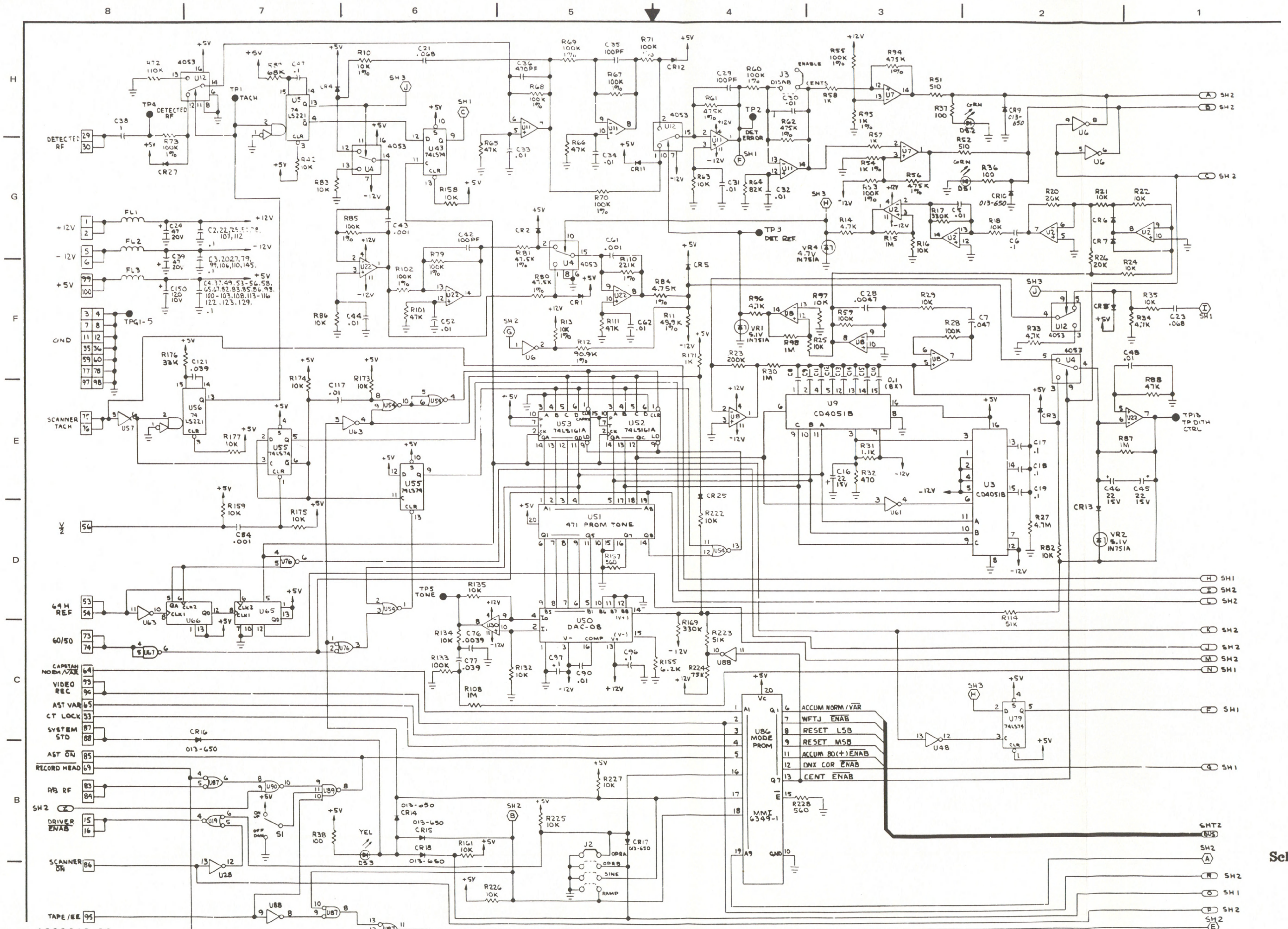
REF DES	U1,7,11,21 22,47,78	U4,12,82	U5,31,56,75,85	U6	U13,62,68	U14,50	U16,26,52, 53,59	U17,23,72	U19,38,41,46, 54,58,71,90	U20,29,37,43, 55,60,64,70, 79	U25,32
AMPEX P/N	590-447	590-450	589-934	590-536	590-620	590-734	589-933	587-757	590-339	589-820	590-335
VENDOR P/N	LM324	CD4053	74LS221	7406	74LS86	DAC-08	74LS161	74LS175	74LS02	74LS74	74LS273
VOLTAGE	—	(16)+5V,(7)-12V	(16)+5V	(14)+5V	(14)+5V	—	(16)+5V	(16)+5V	(14)+5V	(14)+5V	20
GND	—	8	8	7	7	—	8	8	7	7	10

REFERENCE DESIGNATION	
LAST USED	NOT USED
C151	C88
CR27	
DS3	
FL3	
J3	
R243	R19,40
S1	
TP13	
U91	
VR4	

Schematic No. 1467072N.
AST Servo PWA, A7
(Sheet 1 of 3)



Schematic No. 1467072N.
AST Servo PWA, A7
(Sheet 2 of 3)



Schematic No. 1467072N.
AST Servo PWA, A7
(Sheet 3 of 3)

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02								
1													
2													
3	1467088	SCHEMATIC		(-)	(A)								
4													
5	140004-01	EJECTOR, PWB		1	1								
6	1467008-AR	LABEL		1	1								
7	1467009-01	SHIELD		1	1								
8													
9													
10	1379352-AA	TRANSFORMER	T1	1	1								
11													
12													
13	250-155	BUMPER, PAD, SYNTHETIC, RUBBER		3	3								
14	283-105	SPACER, PLAIN, .140 ID X .250 OD X .125 LG		1	1								
15	471-063	SCREW, MACH., PAN HD., XREC DR, #4-40 X .438 LG		1	1								
16	474-500	SCREW, MACH., PAN HD., XREC DR, #4-40 X .312 LG		7	7								
17	502-002	WASHER, LOCK, HELICAL SPRING #4		1	1								
18	506-011	WASHER, BOWED		1	1								
19													
20													
21	064-062	CAPACITOR, CER., MONO., 0.1uF, 100V, 20%	C151	1	1								
22	064-298	.01uF, 100V, 20%	C29	1	1								
23													
24	064-307	.22uF, 100V, 20%	C182	1	1								
25	064-314	1.0uF, 50V, 20%	C46,102,103, 163	4	4								
26	064-316	2.2uF, 50V, 20%	C177,180	2	2								
27	064-679	360pF, 50V, 1%	C179	1	1								
28	064-671	22pF, 100V, ±5%	C95,100,138, 85	4	4								
29	064-674	330pF, 50V, 1%	C66	1	1								
30	064-684	100pF, 50V, 1%	C59,74,176,178	4	4								
31	064-686	150pF, 50V, 1%	C166	1	1								
32	069-687	120pF, 50V, 1%	C24,136	2	2								
33	064-688	10pF, 50V, ±.5pF	C162	1	1								
34	064-691	1500pF, 50V, 1%	C161	1	1								
35	064-699	390pF, 50V, 1%	C169	1	1								
36	064-707	15pF, 100V, 5%	C96	1	1								
37	064-708	CAPACITOR, CER., MONO., 33pF, 100V, 5%	C152,165	3	2								

LM-1467086

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02
38	064-726	CAPACITOR, CER., MONO., 270pF, 50V, 1%	C135	1	1
39	064-727	68pF, 50V, 1%	C155	1	1
40	064-730	30pF, 50V, ±.5pF	C6	1	1
41	064-756	.022uF, 50V, 5%	C91	1	1
42	064-732	240pF, 50V, 1%	C25	1	1
43	064-734	91pF, 50V, 1%	C35	1	1
44	064-754	.01uF, 50V, 5%	C56,57,93,116	4	4
45	064-769	1800pF, 100V, 5%	C26	1	1
46	064-775	20pF, 50V, ±.5pF	C171	1	1
47	064-776	18pF, 50V, ±.5pF	C8,34	2	2
48					
49	064-785	47pF, 50V, ±.5pF	C73,174	2	2
50	064-790	470pF, 50V, 1%	C27,79,115,164, C185,186	6	6
51					
52	064-819	1000pF, 50V, 1%	C3,28,184	3	3
53	064-823	1200pF, 50V, 1%	C2,4,5,7,44,52, 76,133	8	8
54	064-827	3900pF, 50V, 1%	C153	1	1
55	064-828	4700pF, 50V, 1%	C167	1	1
56	064-845	.047uF, 50V, ±10%	C9,11-14,16, 19-23,30,31,32, 36,43,45,47,48, 55,58,61,64,78, 82,83,86,92,94,98, 101,110,113,117, 124,141,143-146, 148,150,154,157, 175	45	45
57	064-848	CAPACITOR, CER., MONO., .082uF, 50V, 1%	C1,17,33,75,77	5	5
58					
59					
60					
61	034-215	CAPACITOR, MICA, 10pF, 500V, ±.5pF	C105	1	1
62	034-219	120pF, 1%	C65,149	2	2
63	034-221	200pF	C134	1	1
64	034-222	100pF	C15,107,126	3	3
65	034-252	82pF	C69	1	1
66	034-253	330pF	C60,63	2	2
67	034-297	180pF, 500V	C97,99	2	2
68	034-311	CAPACITOR, MICA, 1000pF, 100V, 1%	C38	1	1
69	034-371	CAPACITOR, MICA, 510pF, 300V, 1%	C72	1	1
70	034-540	CAPACITOR, MICA, 51pF, 500V, 1%	C68	1	1
71	034-677	CAPACITOR, MICA, 680pF, 300V, 1%	C112,128	2	2
72					
73					
74	036-140	CAPACITOR, MICA, 20pF, 500V, ±.5pF	C18,108,109	3	3
75	056-603	CAPACITOR, MICA, 47pF, 500V, ±.5pF	C10	1	1
76					
77					
78					

LM-1467086

AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467086 SHEET 3 OF 11	REV E

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02
79	055-638	CAPACITOR, POLYCARBONATE, .01uF	C80,81,88,118, 119,127	6	6
80	055-807	1.0uF	C111,129	2	2
81	055-809	.047uF	C54,160	2	2
82	055-810	0.1uF	C62,106,130,131, 142	5	5
83					
84					
85	069-056	CAPACITOR, POLYCAROBNATE, .001uF	C132,147	2	2
86					
87					
88	037-070	CAPACITOR, TANT., 4.7uF, 35V, 10%	C125,170	2	2
89	037-109	10uF, 20V, 10%	C40,41,67,90,137	5	5
90					
91	037-164	1.0uF, 35V, 10%	C37,42,53,84, 120,122,123,159	8	8
92	037-186	120uF, 10V, 10%	C158	1	1
93					
94	037-219	6.8uF, 35V, 10%	C139	1	1
95					
96	037-367	2.2uF, 20V, 10%	C140	1	1
97					
98	037-620	100uF, 20V, 10%	C49,50,87,89	4	4
99					
100	037-728	CAPACITOR, TANT., 6.8uF, 6V, 10%	C39,114,156	3	3
101					
102					
103					
104	038-248	CAPACITOR, VARIABLE, 15-60pF, 100V, 1%	C181	1	1
105	038-250	CAPACITOR, VARIABLE, 3-15pF, 100V, 1%	C104	1	1
106					
107					
108	013-678	DIODE, POWER RECTIFIER, 600V	CR14,15,20,21	4	4
109					
110	013-599	DIODE, SWITCHING, IN4148	CR2-13,16-19,22, 23,25,26,28-38	31	31
111					
112					
113					
114	013-358	DIODE, ZENER, IN751A, 5.1V	VR2	1	1
115	013-983	DIODE, ZENER, IN752A, 5.6V	VR1	1	1
116					
117					
118					
119	051-579	INDUCTOR, FIXED, 47mH, 5%	L7,8	2	2
120	051-744	INDUCTOR, FIXED, 18mH, 10%	L11	1	1
121	051-952	INDUCTOR, FIXED, 10mH, 5%	L3,10,12	3	3
122					
123					

LM-1467086

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02
124	540-015	INDUCTOR FIXED, 1000uH, 5%	L1,2,6,9	4	4
125					
126	051-770	FERRITE CHOKE	FL1-4	4	4
127					
128					
129					
130	000-078	INTEGRATED CIRCUIT, TL430	U5,15	2	2
131	000-116	LM13600N	U3,9,12,31	4	4
132					
133					
134					
135	001-021	AD558JN	U56	1	1
136	001-022	LF411N	U14,25	2	2
137	001-960	CD4020 ⚠1	U36	1	1
138	002-051	CD4063 ⚠1	U50	1	1
139					
140	587-687	MC14174 ⚠1	U58	1	1
141					
142					
143	590-450	CD4053 ⚠1	U29,30,41,52,61	5	5
144	590-458	LM393	U18	1	1
145					
146	590-480	CD4015 ⚠1	U47,48,49	3	3
147					
148					
149	590-501	CD4049 ⚠1	U59	1	1
150	590-502	TL072	U1,2,4,6,11,13, 19,20,21,22,26, 27,32-34,37,39, 40,43,44,46,51, 54,55,60,62	26	26
151	590-504	NE5534	U7,28	2	2
152					
153	590-506	CD4011 ⚠1	U24,35	2	2
154	590-528	CD4001 ⚠1	U42	1	1
155					
156	590-542	LM311	U53	1	1
157	590-546	CD4013 ⚠1	U17,23	2	2
158	590-573	NE570	U10,45	2	2
159					
160	590-601	LF356	U8,16,63	3	3
161					
162	590-729	CD4052 ⚠1	U38	1	1
163	590-773	INTEGRATED CIRCUIT, 74C374 ⚠1	U57	1	1
164					
165					
166					

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AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467086 SHEET 5 OF 11	REV E

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02
167	066-652	RESISTOR, C.F., 470K OHMS, .25W, 5%	R13,47,98,366,	4	4
168	066-660	22	R248	1	1
169	066-663	220	R185,188,279, 282,401	5	5
170	066-665	1.0K	R66,81,169,176, 211,220,270	14	14
171			274,275,332,344, 345,347,377		
172					
173	066-666	2.7K	R33,34,46	3	3
174	066-667	3.0K	R118,119,226,312	4	4
175	066-668	4.7K	R138,191,263, 271-273,285, 413,414	9	9
176					
177	066-669	8.2K	R4, 158,309	3	3
178					
179					
180	066-673	1 MEG	R96,125,193,287	4	4
181	066-675	1.8K	R83	1	1
182	066-689	2.2K	R6,61,105,157, 186,187,280,281, 292,301,371,403, 410	13	13
183					
184	066-711	7.5K	R92,131,178	3	3
185	066-712	22K	R8,24,25,51,63, 74,78,80,111, 135,161,162,167, 217,219,322,330, 352,357,359,418	21	21
186					
187					
188	066-717	47K	R15,48,95,121, 290,390,416	7	7
189					
190	066-718	5.6K	R16,159,225	3	3
191	066-720	3.3K	R198,265,289	3	3
192					
193	066-810	10	R183,184,195, 276,277,288	6	6
194					
195	066-812	100	R2,128,132,,196, 197,236-239, 242-245,294	14	14
196	066-813	150	R17,64,189,190, 283,284,313,341, 349,380	10	10
197					
198					
199	066-815	300	R305	1	1
200	066-816	390	R11,60,106	3	3
201	066-818	470	R209,331	2	2
202	066-820	750	R353	1	1
203	066-821	820	R404	1	1
204	066-824	1.5K	R62,152,160,204, 369	5	5
205	066-826	RESISTOR, C.F., 2.0K OHMS, .25W, 5%	R37	1	1

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ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02
206	066-827	RESISTOR, C.F., 3.9K OHMS, .25W, 5%	R103,114,215	3	3
207	066-829	6.8K	R22,35,42,43, 208	5	5
208	066-830	10K	R5,26-23,41,88,89, 107,109,110,129,133, 134,139,141,166,170, 171,179,180,214,218, 221,230,296,300,303, 307,342,343,346,355, 365,381-386,408,412, 415	43	43
209	066-831	11K	R192,286	2	2
210	066-832	18K	R122,311	2	2
211	066-833	56K	R123,213,253, 291,321,367	6	6
212	066-837	130	R388	1	1
213	066-839	560	R210	1	1
214					
215					
216					
217	066-847	33K	R140,260,268, 269,391	5	5
218	066-849	100K	R3,7,12,32,99, 146,147,172 257,278,293,304 314-318,326,333 361-364,373,379 407	26	26
219	066-850	240K	R145	1	1
220	066-853	200K	R49,266,372,406	4	4
221	066-856	15K	R108,136,137, 212	4	4
222	066-858	4.7M	R409	1	1
223					
224	066-860	39K	R97,126,350, 353	4	4
225	066-863	3.6K	R9	1	1
226	066-865	12K	R23,94,228,231, 267,398, 14	7	7
227					
228	066-866	27K	R173,251,327, 348,378,400	6	6
229	066-873	20K	R38,310	2	2
230					
231	066-912	82K	R1,5,116,224, 297	4	4
232	066-938	47	R387		1
233	066-940	2.2M	R20,84,163,395	4	4
234	066-958	75K	R411		1
235	066-974	150K	R100,168,175, 222,417		5
236	076-004	180	R85		1
237	076-009	68K	R10,39,86,101, 155,261,264	7	7
238					
239	076-011	180K	R351		1
240	076-012	330K	R127,154,227	3	3
241	076-013	680K	R340, 370	2	2
242	076-045	75	R75,76,181,182	4	4
243	076-050	270K	R87,112,165, 360,397	5	5
244	076-051	300K	R117,120,223, 262		4
245	076-053	RESISTOR, C.F., 390K OHMS, .25W, 5%	R306		1

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AMPEX Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467086 SHEET 7 OF 11	REV E

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02
246	076-046	RESISTOR, C.F., 36K OHMS, .25W, 5%	R156	1	1
247					
248					
249	041-344	RESISTOR, FIXED, COMP, 390 OHMS, .50W, 5%	R164	1	1
241	041-601	RESISTOR, FIXED, COMP, 20 OHMS, .50W, 5%	R1	1	1
242					
243					
244					
245					
246	062-623	RESISTOR, M.F., 976 OHMS, .125W, 1%	R58	1	1
247	062-624	1.0K	R55	1	1
248					
249	062-693	20.0K	R338	1	1
250	062-796	1M	R255,325	2	2
251	062-797	31.6K	R124	1	1
252	062-870	178	R30,31,45,79,82	5	5
253	062-871	182	R44	1	1
254					
255	062-937	1.82K	R68	1	1
256	062-955	3.32K	R21,73	2	2
257	062-961	3.92K	R328	1	1
258	062-962	4.02K	R199,203	2	2
259	062-966	4.75K	R144	1	1
260	062-968	4.99K	R200,201,202, 205,233,240,241	7	7
261					
262	062-974	6.19K	R259	1	1
263	062-982	9.09K	R258,323	2	2
264	062-983	10.0K	R91,252,254,295,299, 337,339,356,389	9	9
265	062-991	14.7K	R206	1	1
266	066-004	24.3K	R149	1	1
267	066-006	26.7K	R298	1	1
268	066-009	33.2K	R56,57	2	2
269	066-011	39.2K	R90,335	2	2
270	066-763	221K	R113		1
271	066-012	40.2K	R334	1	1
272	066-784	30.9K	R104	1	1
273	066-017	75.0K	R50,52	2	2
274	066-022	200K	R148,150,151, 153	4	4
275	066-032	442K	R216	2	1
276	066-062	3.65K	R53,54	2	2
277	066-064	52.3K	R246,247	2	2
278	066-453	6.49K	R354	1	1
279	066-656	30.1K	R19,65	2	2
280	066-714	35.7K	R18,67	2	2
281	066-733	RESISTOR, M.F., 49.9K OHMS, .125W, 1%	R194,235	2	2

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AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467086 SHEET 8 OF 11	REV B

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02
282					
283	066-736	RESISTOR, M.F., 9.53K OHMS, .125W, 1%	R232,234	2	2
284	066-918	105K	R336		1
285					
286	076-067	71.5K	R71,72	2	2
287	076-363	232K	R69,70	2	2
288	076-367	RESISTOR, M.F., 316K OHMS, .125W, 1%	R256,324	2	2
289					
290					
291					
292	058-004	RESISTOR, VARIABLE, 1K OHMS, .5W, 30%	R36	1	1
293	058-516	50 10%	R77,174	2	2
294	058-527	20K	R402,405	2	2
295	058-560	500	R207		1
296	058-564	500	R130,143	2	2
297	058-565	10K	R40,229,308,368, 399	5	5
298	058-575	100K	R177	1	1
299					
300					
301	058-765	50K	R142,396	2	2
302	058-947	RESISTOR, VARIABLE, 500K OHMS, .5W, 10%	R93,392	2	2
303					
304					
305					
306	058-342	RESISTOR, VARIABLE, 5K OHMS, .75W, 10%	R249,313	2	2
307	058-343	10K	R102	1	1
308	058-388	50K	R250,329	2	2
309					
310					
311	058-668	20K	R374,375	2	2
312	058-696	100K	R329	1	1
313					
314					
315	058-693	200K	R376	1	1
316	075-348	RESISTOR, VARIABLE, 50 OHMS, .75W, 10%	R59	1	1
317					
318					
319					
320	014-780	TRANSISTOR, MPS6514	Q18,19,23,34,39, 44,60,61,64,68, 74,75,79	13	13
321	014-781	TRANSISTOR, MPS6518	Q9,15,16,20,24, 29,33,40,45,63, 65,70,76,83,84	15	15
322	579-018	TRANSISTOR, VN10KM	Q1,5,6,10,31,32, 47,78,80	9	9
323					
324					

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AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467086 SHEET 9 OF 11	REV E

ITEM NO.	PART NUMBER	DESCRIPTION		REF DESIG	-01	-02
325	579-121	TRANSISTOR, J506		Q50,51,56,57	4	4
326						
327						
328	580-166		2N5322	Q11	1	1
329	580-167		2N5320	Q12	1	1
330	580-274		MPSA13	Q27	1	1
331	580-319		2N5555	Q4,17,21,22,28,46,62,77,81,82,85	11	11
332						
333	580-757		MJE240	Q8,66	2	2
334	580-758		MJE250	Q7,67	2	2
335						
336	580-825		MPS8599	Q2,13,42,49,53,55,59,72	8	8
337	580-841		MPS8099	Q3,14,30,43,48,52,54,58,73	9	9
338						
339	580-373		TIP125	Q41,71	2	2
340	580-944		LM394	Q25,26	2	2
341	580-959	TRANSISTOR, TIP120		Q38,69	2	2
342						
343						
344	070-455	FUSE, NORMAL BLOW, .125 AMP		F1,2	2	2
345						
346	020-915	RELAY, GENERAL PURPOSE, 12V		K1,2,3	3	3
347						
348						
349	087-388	SILICONE, COMPOUND, GREASE, HEAT CONDUCTIONG			A/R	A/R
350						
351						
352	122-432	SWITCH, ROTARY, 4 PDT, 16 POS		S1	1	1
353						
354						
355	135-423	HEADER ASSEMBLY, 12 POSTS			1	1
356						
357						
358	187-259	TERMINAL, P.C., TEST POINT		TP1-12	12	12
359						
360						
361						
362	302-395	STRAP, CABLE, MOUSTAIL			7	7
363						
364	615-004	WIRE, BARE, SOLID, 24 AWG			A/R	A/R
365	616-720	CABLE SHIELDED, 2 COND			A/R	A/R
366	CD478	CABLE SHIELDED, 1 COND			A/R	A/R
367						
368						

LM-1467086

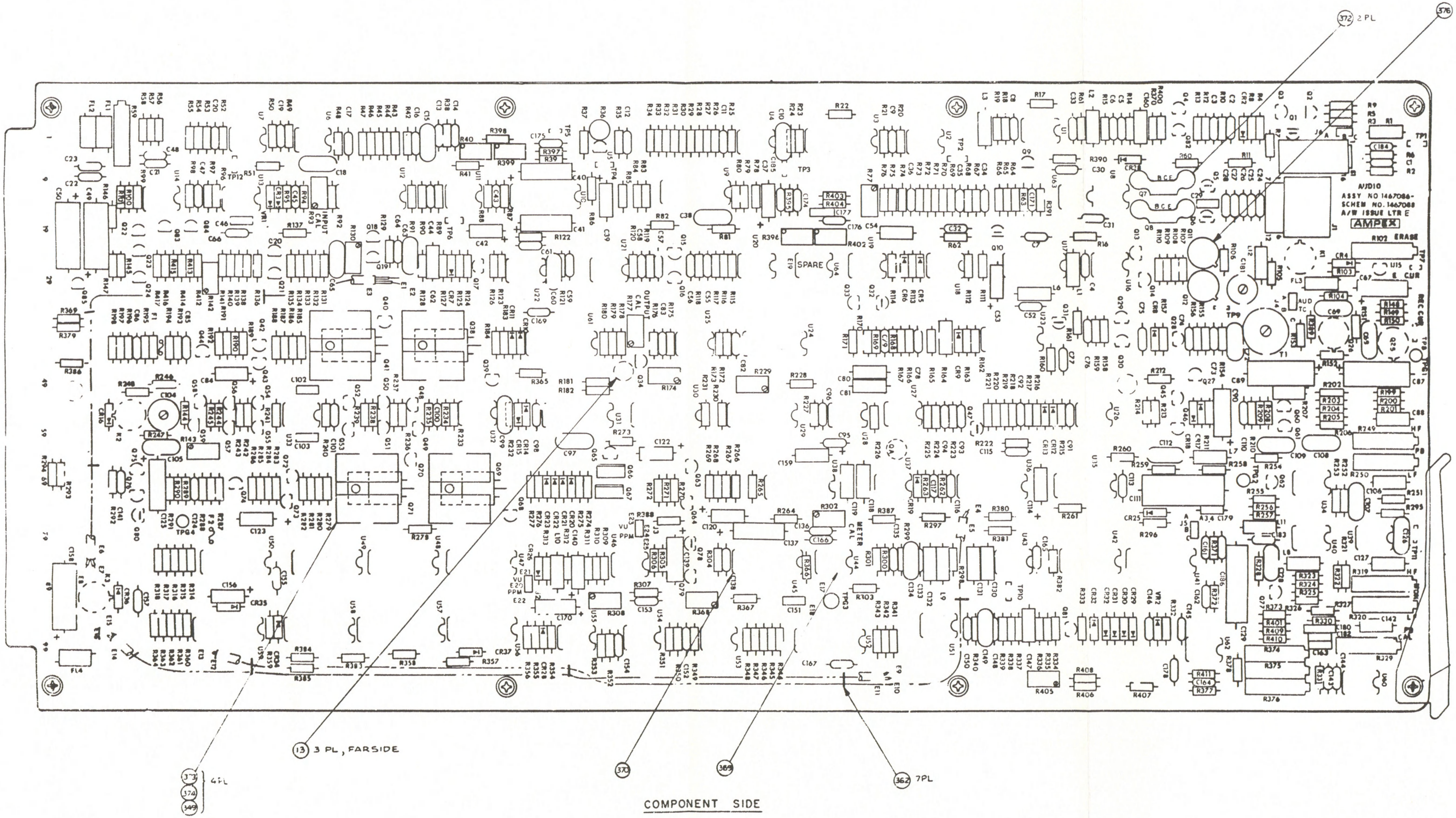
AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA | CODE IDENT NO 92739 | LIST OF MATERIALS | LM-1467086 SHEET 10 OF 11 | REV L

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02
369	582-069	INTEGRATED CIRCUIT, MTG HDW., 8 PINS	REF:U44	1	1
370	587-462	INTEGRATED CIRCUIT, MTG HDW., 16 PINS	REF:U45	1	1
371					
372	582-361	TRANSISTOR, MTG HDW., HEATSINK	REF:Q7,8	2	2
373	582-362	TRANSISTOR, MTG HDW., HEATSINK	REF:Q38,41,69, 71	4	4
374	582-378	TRANSISTOR, MTG HDW., INSULATOR	REF:Q38,41,69, 71	4	4
375					
376	280-998	TRANSISTOR, MTG HDW., MTG. PAD	REF.Q11,12	2	2
377					
378					
379	135-435	HEADER 3 POS.	REF:J2,3,4,5,6	5	5
380	140-437	JACK, SHORTING, 2 CONTACT	J2,3,4,5,6	5	5
381					
382	173-620	TERMINAL, SWAGE	TPG1-4	4	4

NOTES:

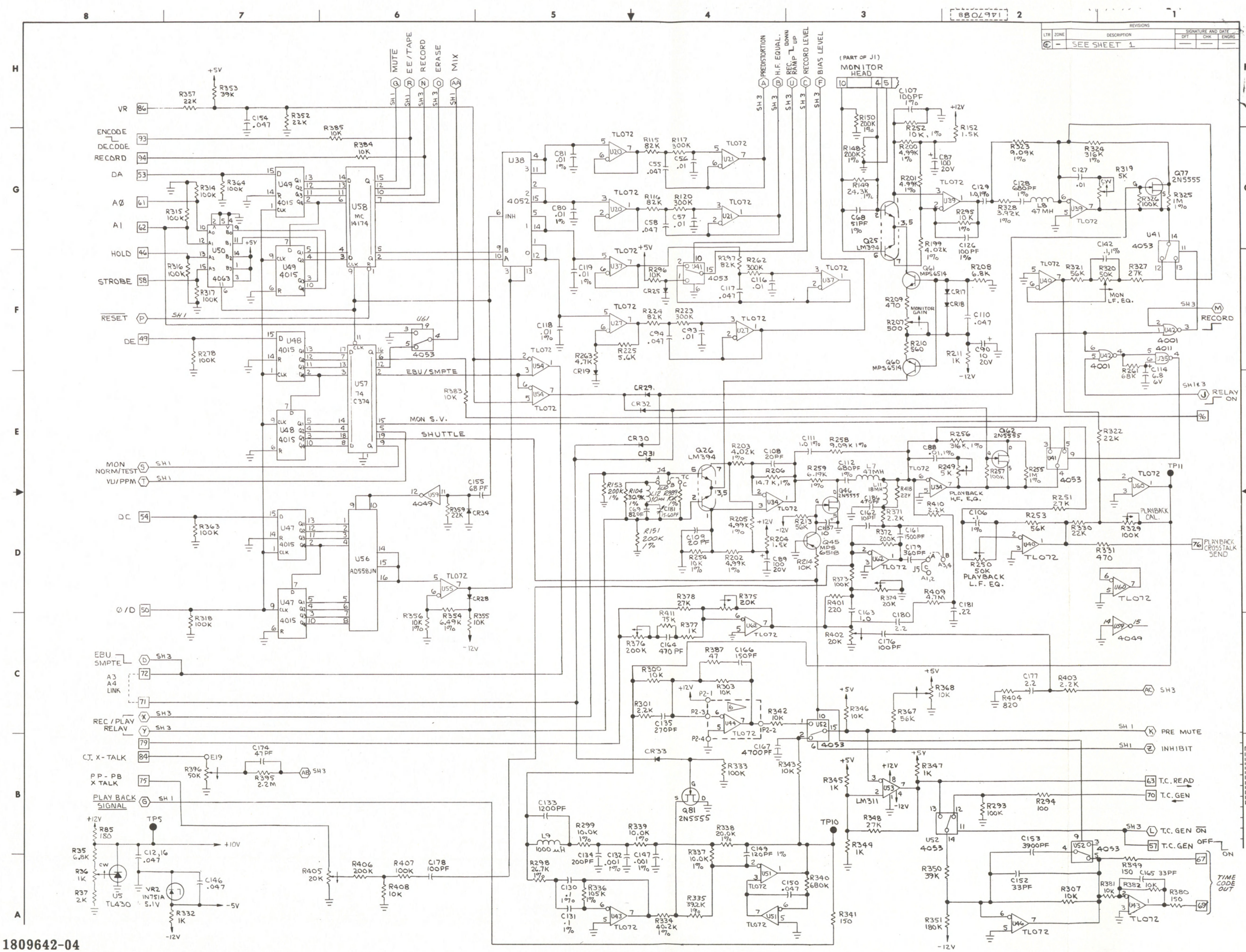
1 STATIC SENSITIVE. SPECIAL HANDLING REQUIRED PER AMPEX STANDARD HE1-1.

LM-1467086

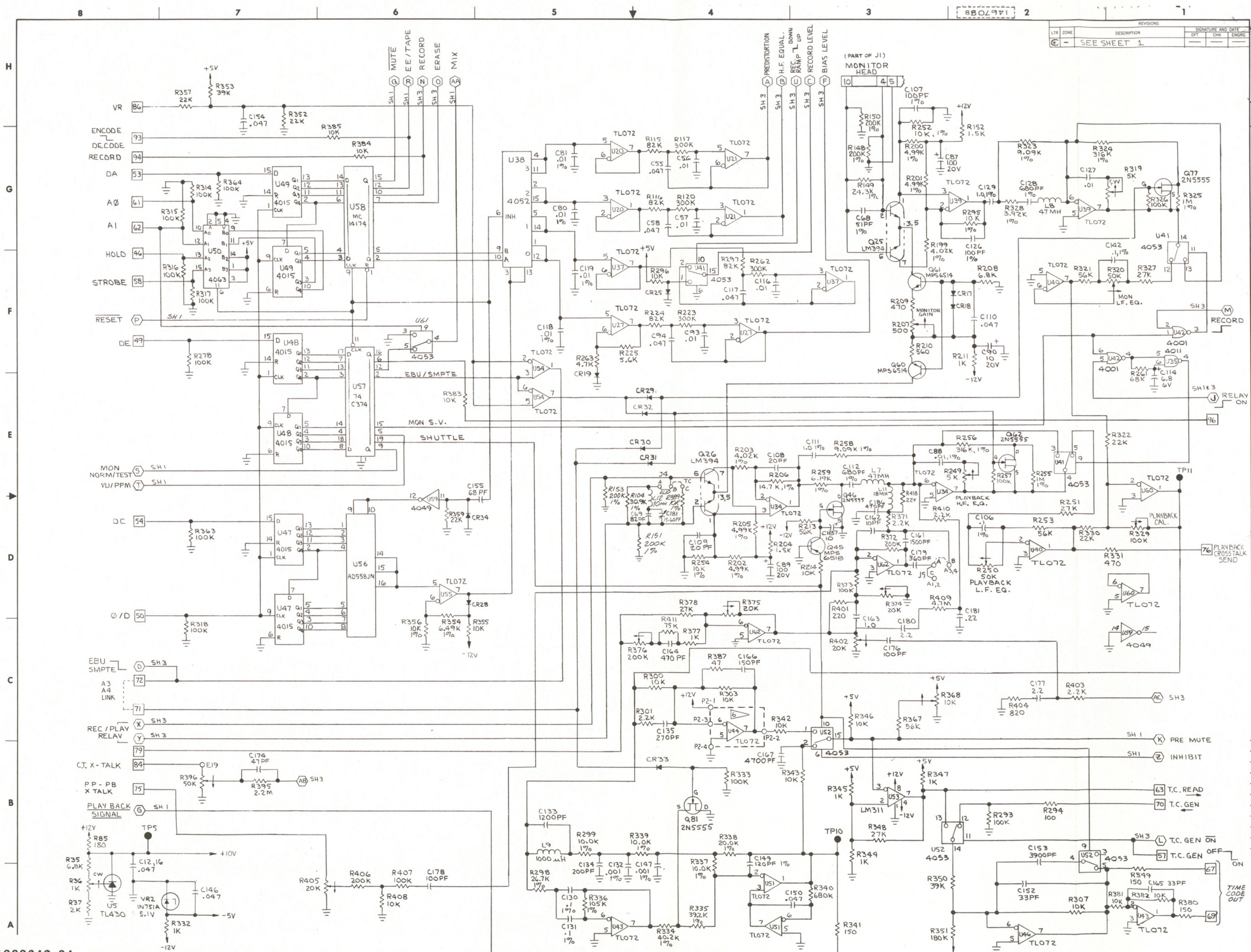


COMPONENT SIDE

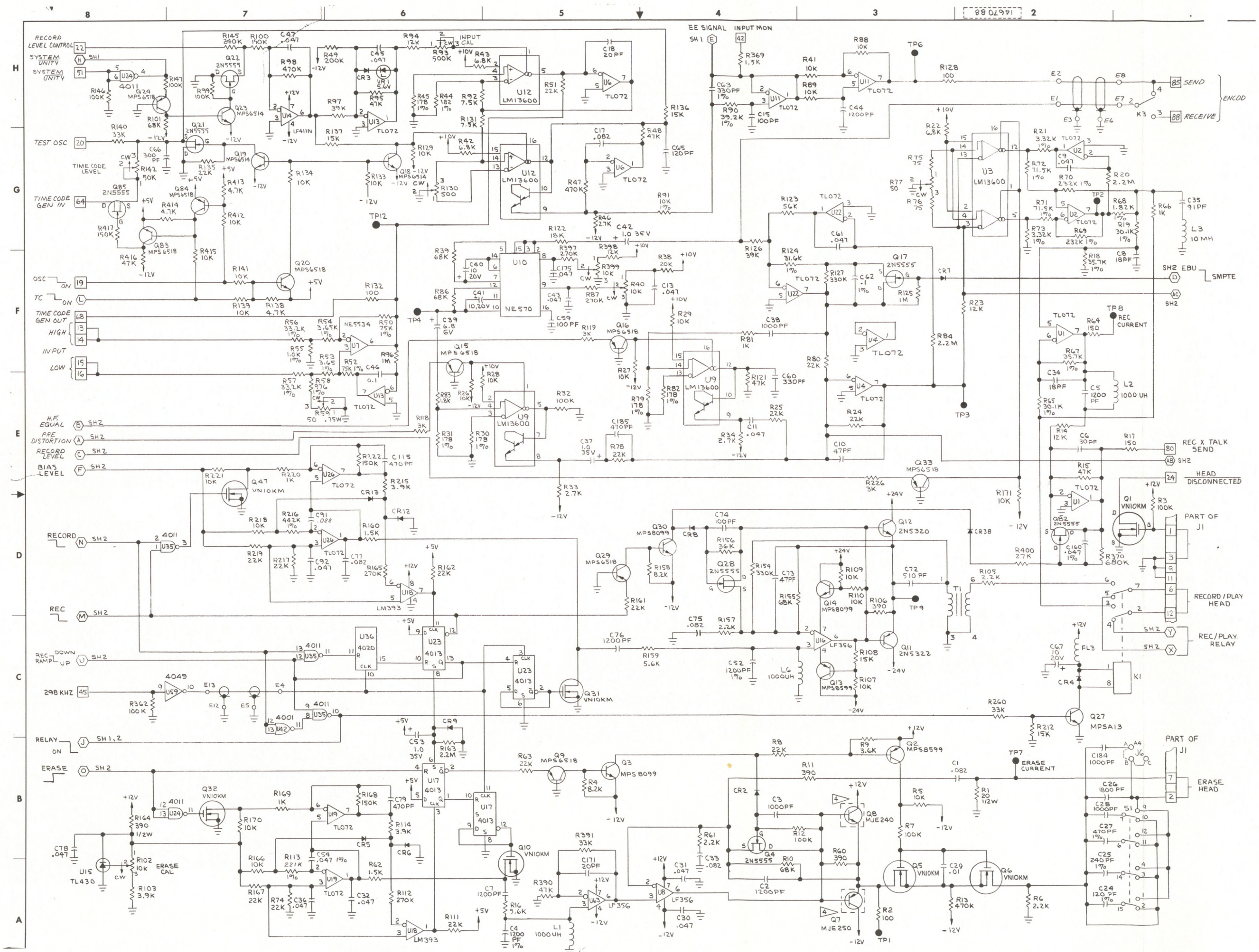
Assembly No. 1467086-02B.
Audio PWA, A8-A11



Schematic No. 1467088—.
Audio PWA, A8-A11
(Sheet 2 of 3)



Schematic No. 1467088—. Audio PWA, A8-A11 (Sheet 2 of 3)



Schematic No. 1467088—.
Audio PWA, A8-A11
(Sheet 3 of 3)

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
1				-01
2				
3	1467745	SCHEMATIC		(-)
4				
5	1400004-01	EJECTOR PWB		1
6	1467008-BK	LABEL		1
7	1467009-01	SHIELD		1
8	250-155	BUMPER, PAD, SYNTHETIC RUBBER		3
9	283-105	SPACER, PLAIN, .140 ID X .250 OD X .125 LG		1
10	471-063	SCREW, MACH, PAN HD, XREC DR, 4-40 X .438 LG		1
11	474-500	SCREW, MACH, PAN HD, XREC DR, 4-40 X .312 LG		7
12	502-002	WASHER, LOCK, HELICAL SPRING #4		1
13	506-011	WASHER, BOWED		1
14	064-826	CAPACITOR, CER., MONO, 330pF, 50V, 1%		4
15	064-314	CAPACITOR, CER., MONO, 1.0uF, 50V, 20%		5
16	064-671	↕ ↕ ↕ 22pF, 100V, ±5%		7
17	064-684	100pF, 50V, 1%		1
18	064-687	120pF, 50V, 1%		1
19	064-688	10pF, 50V, ±.5pF		1
20	064-845	CAPACITOR, CER., MONO, .047uF,50V,10%		38
21	064-785	CAPACITOR, CER., MONO, 47pF, 50V, ±.5pF		1
22	064-742	CAPACITOR, CER., MONO, 1.0uF, 50V, ±.5pF		1
23	034-215	CAPACITOR, MICA, 10pF, 500V, ±.5pF		1
24	034-222	↕ ↕ 100pF, ↕ 1%		1
25	034-253	330pF, 1%		1
26	034-297	180pF, 1%		2
27	056-140	CAPACITOR, MICA, 20pF, 500V, ±.5pF		1
28	064-842	CAPACITOR, CER., MONO, .027pF, 50V, 10%		4
29				
30	037-109	CAPACITOR, TANT, 10uF, 20V, 10%		2
31	037-164	↕ ↕ 1.0uF, 25V ↕		4
32	037-219	6.8uF, 35V		1
33	037-367	2.2uF, 20V		1
34	037-620	100uF, 20V		2
35	037-070	4.7uF, 35V		1
36	037-749	CAPACITOR, TANT, 68uF, 15V, 10%		1
37	037-186	CAPACITOR, TANT, 120uF, 10V, 10%		1

LM-1467743

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467743 SHEET 2 OF 4	REV B

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
38				
39	038-250	CAPACITOR, VARIABLE, 3-15pF, 100V, 1%		1
40				
41	013-678	DIODE, POWER RECTIFIER, 600V		4
42	013-599	DIODE, SWITCHING, IN4148		9
43	013-983	DIODE, ZENER, IN752A, 5.6V		1
44	013-358	DIODE, ZENER, IN751A, 5.1V		2
45	051-770	FERRITE - CHOKE		3
46				
47	070-455	FUSE, NORMAL BLOW, 1/8 AMP		2
48	590-742	INTEGRATED CIRCUIT, CD4555 ▷3		1
49	540-055	INDUCTOR, FIXED, 10mH, 10%		1
50	590-517	INTEGRATED CIRCUIT, CD4025 ▷3		4
51	000-022	INTEGRATED CIRCUIT, LF411		2
52	000-116	LM13600		2
53	587-687	MC14174 ▷3		1
54	589-364	NE570		1
55	589-602	CD4063 ▷3		1
56	590-102	NE5532		2
57	590-450	CD4053 ▷3		11
58	590-480	CD4015 ▷3		3
59	590-501	CD4049 ▷3		1
60	590-502	INTEGRATED CIRCUIT, TL072		11
61	590-724	INTEGRATED CIRCUIT, CD4051 ▷3		8
62	001-023	INTEGRATED CIRCUIT, 74C373 ▷3		4
63				
64	020-915	RELAY, GENERAL PURPOSE, 12V		1
65				
66	066-652	RESISTOR, C.F., 470K OHMS, .25W, 5%		1
67	066-663	220		4
68	066-664	510		1
69	066-665	1.0K		6
70	066-668	4.7K		5
71	066-673	1 MEG		4
72	066-676	560K		2
73	066-689	2.2K		6
74	066-711	7.5K		2
75	066-712	22K		5
76	066-717	47K		2
77	066-720	3.3K		3
78	066-810	10		6
79	066-812	100		10
80	066-813	150		5
81	066-815	300		1
82	066-820	RESISTOR, C.F., 750 OHMS, .25W, 5%		1

LM-1467743

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
83	066-829	RESISTOR, C.F., 6.8K OHMS, .25W, 5%		2
84	066-830	10K		3
85	066-831	11K		2
86	066-832	18K		1
87	066-833	56K		2
88	066-843	6.2K		1
89	066-847	33K		2
90	066-849	100K		17
91	066-853	200K		1
92				
93	066-860	39K		1
94	066-865	12K		3
95	066-866	27K		2
96	066-974	150K		4
97				
98	076-039	20		1
99	076-045	75		2
100	076-053	390K		1
101	076-059	RESISTOR, C.F., 1.3 MEG OHMS, .25W, 5%		1
102	066-667	RESISTOR, C.F., 3.0K OHMS, .25W, 5%		1
103				
104				
105	062-623	RESISTOR, M.F., 976 OHMS, .125W, 1%		1
106	062-624	1.0K		1
107	062-870	178		1
108	062-871	182		1
109	062-966	4.75K		1
110	062-968	4.99K		3
111	062-983	10.0K		13
112	066-009	33.2K		2
113	066-011	39.2K		1
114	066-017	75.0K		2
115	066-062	3.65K		2
116	066-064	52.3K		2
117	066-733	49.9K		2
118	066-736	RESISTOR, M.F., 9.53K OHMS, .125W, 1%		2
119				
120				
121	058-947	RESISTOR, VARIABLE, 500K OHMS, .5W, 10%		2
122	058-516	RESISTOR, VARIABLE, 50 OHMS, .5W, 10%		1
123	058-564	500		2
124	058-565	10K		2
125	058-568	RESISTOR, VARIABLE, 50K OHMS, .5W, 10%		1
126				

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
127	075-348	RESISTOR, VARIABLE, 50 OHMS, .75W, 10%		1
128				
129				
130	014-780	TRANSISTOR, MPS6514		8
131	014-781	MPS6518		5
132	579-018	VN10KM		2
133	579-121	J506		4
134	580-757	MJE240		1
135	580-758	MJE250		1
136	580-825	MPS8599		6
137	580-841	MPS8099		6
138	580-873	TIP125		2
139	580-959	TRANSISTOR, TIP120		2
140				
141				
142				
143	120-976	SWITCH, SPDT, P.C. MTG.		5
144				
145	582-362	TRANSISTOR, MTG HDW, HEATSINK		4
146				
147	062-561	RESISTOR, M.F., 61.9K OHMS, .125W, 1%		4
148	062-622	953		9
149	062-639	3.01K		4
150	062-694	15.0K		12
151	062-918	825		4
152	062-921	887		4
153	062-922	909		4
154	062-957	3.48K		4
155	062-974	6.19K		4
156	062-977	7.50K		4
157	062-996	17.4K		4
158				
159				
160				
161	066-160	6.04K		4
162	066-172	845		8
163	066-512	RESISTOR, M.F., 4.22K OHMS, .125W, 1%		4

NOTES:

1. STATIC SENSITIVE, SPECIAL HANDLING REQUIRED PER AMPEX STD HE1-1.

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-11	-12	-03	-04	-05	-06	-07	-08	-09	-10
				QTY REQD PER DASH NUMBER									
1													
2													
3	1467122	SCHEMATIC		V	W	K	L	M	N	P	S	T	U
4											1		
5	1400004-01	EJECTOR, PWB		1	1	1	1	1	1	1	1	1	1
6	1467008-AS	LABEL		1	1	1	1	1	1	1	1	1	1
7	1467009-01	SHIELD		1	1	1	1	1	1	1	1	1	1
8	250-155	BUMPER, PAD, SYNTHETIC RUBBER		3	3	3	3	3	3	3	3	3	3
9	283-105	SPACER, PLAIN, .140 ID X .250 OD .125 LG		1	1	1	1	1	1	1	1	1	1
10	471-063	SCREW, MACH, PAN HD, XREC DR, 4-40 X .438 LG		1	1	1	1	1	1	1	1	1	1
11	474-500	SCREW, MACH, PAN HD, XREC DR, 4-40 X .312 LG		7	7	7	7	7	7	7	7	7	7
12	502-002	WASHER, LOCK, HELICAL SPRING, #4		1	1	1	1	1	1	1	1	1	1
13	506-011	WASHER, BOWED		1	1	1	1	1	1	1	1	1	1
14													
15	064-699	CAPACITOR, CER. MONO, 390pF, 50V, 1%	C28	1	1						-	1	1
16	064-685	CAPACITOR, CER. MONO, 200pF, 50V, 1%	C86,98	2	2						-	2	2
17	064-655	CAPACITOR, CER. MONO, 47pF, 100V, 5%	C84,114	2	2	2	2	2	2	2	2	2	2
18	064-682	220pF, 50V, 1%	C18	1	1	1	1	1	1	1	1	1	1
19	064-684	100pF, 50V, 1%	C119,137,138	3	3	1	1	1	1	1	1	1	3
20	064-686	150pF, 50V, 1%	C23,53	2	2	2	2	2	2	2	2	2	2
21	064-685	200pF, 50V, 1%	C13,86,98	-	2	3	3	3	3	3	3	-	-
22	064-687	120pF, 50V, 1%	C38	1	1	1	1	1	1	1	1	1	1
23	064-697	300pF, 50V, 1%	C46	1	1	1	1	1	1	1	1	1	1
24	064-744	2700pF, 50V, 1%	C61,91	2	2	2	2	2	2	2	2	2	2
25	064-698	1000pF, 50V, 1%	C6,8,69,72, 74	-	-	5	5	5	-	-	-	-	-
26	064-699	390pF, 50V, 1%	C28,44	-	-	2	2	2	2	2	2	-	-
27	064-716	91pF, 100V, 5%	C3	-	-	1	1	1	1	-	-	-	-
28	064-725	180pF, 100V, 5%	C3,67	2	2					2	2	2	2
29	064-720	360pF, 100V, 5%	C2,68	-	-	2	2	2	2	-	-		-
30	064-723	750pF, 100V, 5%	C1,66	-	-	2	2	2	2	-	-	-	-
31	064-725	180pF, 100V, 5%	C4,67	-	-	2	2	2	2	-	-	-	-
32	064-653	.1uF, 50V, 20%	C72	1	1				1			1	1
33	064-732	240pF, 50V, 1%	C39	1	1				1			1	1
34	064-746	.047uF, 50V, 5%	C32,59	2	2	2	2	2	2	2	2	2	2
35	064-754	.01uF, 50V, 5%	C24	1	1				1			1	1
36	064-747	.082uF, 50V, 5%	C22	1	1				1			1	1
37	064-790	CAPACITOR, CER. MONO, 470pF, 50V, 1%	C16,80	-	-	2	2	2	2	2	-	-	-

LM-1467120

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467120 SHEET 2	AD	REV

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-11	-12	-03	-04	-05	-06	-07	-08	-09	-10
38	064-761	CAPACITOR, CER. MONO, .15uF, 50V, 5%	C29	1	1	1	1	1	1	1	1	1	1
39	064-823	1200pF, 50V, 1%	C11,12,77,78, 136	5	5	5	5	5	5	5	5	5	5
40	064-753	.015uF, 50V, 1%	C30	1	1	1	1	1	1	1	1	1	1
41	064-826	3300pF, 50V, 1%	C27	1	1	1	1	1	1	1	1	1	1
42	064-825	2200pF, 50V, 1%	C128	1	1	1	1	1	1	1	1	1	1
43	064-845	.047uF, 50V, 10%	C10,14,15,19, 36,37,40,42,43,	22	22	22	22	22	22	22	22	22	22
44			45,47,51,56,58,73,76, 88,93,95,96,103,113										
45	064-720	360pF, 100V, 5%	C4,68	2	2					2	2	2	2
46	064-723	750pF, 100V, 5%	C2,66	2	2					2	2	2	2
47	064-691	1500pF, 50V, 1%	C1	1	1						1	1	1
48	064-698	1000pF, 50V, 1%	C6,8,69,74	4	4				4	4	4	4	4
49	064-848	CAPACITOR, CER. MONO, .082uF, 50V, 10%	C7,9,17,26,31, 49,52,55,60,75,	-	-	47	47	47	47	47	-	-	-
50		79,81,82,83,85,87,89,90,92,97,101,102, 104-108,110,111,115-118,120-127,129,											
51		130,131,39,112,132											
52	064-790	CAPACITOR, CER. MONO, 470pF, 50V, 1%	C80	1	1						1	1	1
53	064-309	CAPACITOR, CER. MONO, .47uF, 100V, 20%	C35	1	1	1	1	1	1		1	1	1
54	064-848	CAPACITOR, CER. MONO, .082uF, 50V, 10%	C17,26,31,49,52,55, 60,75,79,81-83,85,	45	45						45	45	45
55		87,89,90,92,97,99,101,102,104-108,110-112, 115-118,120-127,129-132											
56	069-046	CAPACITOR, POLYCARBONATE, .0033uF, 100V, 1%	C64	1	1	1	1	1	1		1	1	
57	069-056	.001uF, 100V, 1%	C65	1	1	1	1	1	1		1	1	1
58	069-058	.015uF, 100V, 1%	C41,94	2	2	2	2	2	2	2	2	2	2
59													
60	069-144	.0022uF, 100V, 1%	C5,71	2	2	2	2	2	2	2	2	2	2
61	069-057	CAPACITOR, POLYCARBONATE, .0068uF, 100V, 1%	C70	1	1	1	1	1	1		1	1	1
62													
63													
64	069-107	CAPACITOR, POLYESTER, 3300pF, 50V, 5%	C20	1	1	1	1	1	1		1	1	1
65													
66													
67													
68													
69													
70	037-109	CAPACITOR, TANTALUM, 10uF, 20V, 10%	C25	1	1	1	1	1			1	1	1
71	037-164	1.0uF, 35V, 10%	C21,50	2	2	2	2	2	2		2	2	2
72	037-620	100uF, 20V, 10%	C7,9,33,34, 62,63	6	6						6	6	6
73	037-186	120uF, 10V, 10%	C133	1	1			1			1	1	1
74	037-227	.33uF, 35V, 10%	C48	1	1			1			1	1	1
75	037-620	100uF, 20V, 10%	C33,34,62, 63	-	-	4	4	4	4	4	-	-	-
76	037-728	CAPACITOR, TANTALUM, 6.8uF, 6V, 10%	C100,134,135	3	3	3	3	3	3	3	3	3	3
77													
78													
79													
80	017-164	CRYSTAL, UNIT, 3.579545MHZ	Y1	1	1			1			1	1	1
81													
82													

LM-1467120

AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467120 SHEET 3	AD	REV

ITEM NO	PART NUMBER	DESCRIPTION	NOTE	REF DESIG	-11	-12	-03	-04	-05	-06	-07	-08	-09	-10
83	013-599	DIODE, SWITCHING, CD458		CR1-6,7	-	-	7	7	7	7	7	7	-	-
84	013-599	DIODE, SWITCHING, CD458		CR1-10	10	10							10	10
85														
86	013-358	DIODE, ZENER, 5.1V, IN751A		VR1	1	1	1	1	1	1	1	1	1	1
87														
88	581-894	DIODE, LIGHT EMITTING		DS1	1	1								1
89														
90	051-770	FERRITE-CHOKE		FL1,2,3	3	3	3	3	3	3	3	3	3	3
91														
92														
93														
94														
95	000-077	INTEGRATED CIRCUIT, ADC0804		U70	1	1	1	1	1	1	1	1	1	1
96	000-116	LM13600		U13,20	2	2	2	2	2	2	2	2	2	2
97	001-981	MF10		U3	1	1	1	1	1	1	1	1	1	1
98	000-078	TL430		U28,29	2	2	2	2	2	2	2	2	2	2
99														
100	590-724	CD4051	1	U52,64	2	2	2	2	2	2	2	2	2	2
101	001-956	SN74LS90		U32	1	1	1	1	1	1	1	1	1	1
102	590-742	CD4555	1	U51	1	1	1	1	1	1	1	1	1	1
103														
104														
105														
106	001-958	CD4021	1	U47,48,79	3	3	3	3	3	3	3	3	3	3
107	589-367	SN74LS92		U44,55	2	2	2	2	2	2	2	2	2	2
108	590-502	TL072		U2,7,8,10,11, 17,39 31,42,43	10	10	10	10	10	10	10	10	10	10
109														
110	589-441	LF356		U1,18	2	2	2	2	2	2	2	2	2	2
111	589-602	CD4063	1	U46,65	2	2	2	2	2	2	2	2	2	2
112	589-671	MM74C89	1	U58,80	2	2	2	2	2	2	2	2	2	2
113	589-537	74LS374		U59	1	1	1	1	1	1	1	1	1	1
114	590-565	74LS373		U60	1	1	1	1	1	1	1	1	1	1
115	589-763	LM378N		U16	1	1	1	1	1	1	1	1	1	1
116	589-813	SN74LS00		U34	1	1	1	1	1	1	1	1	1	1
117														
118	589-823	SN74LS138		U38,74,85	3	3	3	3	3	3	3	3	3	3
119	589-824	SN74LS153		U72,82	2	2	2	2	2	2	2	2	2	2
120	589-830	SN74LS174		U49	1	1	1	1	1	1	1	1	1	1
121														
122														
123														
124														
125	590-335	SN74LS273		U39,40,50,61, 62,73,83,84	8	8	8	8	8	8	8	8	8	8
126	590-450	INTEGRATED CIRCUIT, CD4053	1	U6,12,14,15,23-26,35,36,37,77	12	12	12	12	12	12	12	12	12	12
127														

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AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467120 SHEET 4	AD	REV

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-11	-12	-03	-04	-05	-06	-07	-08	-09	-10
128	590-479	INTEGRATED CIRCUIT, CD4007 ▷1	U9	-	-	1	1	1	1	1	1	1	-
129	590-480	CD4015	U4,5,54	3	3	3	3	3	3	3	3	3	3
130	590-501	CD4049	U21,67,78	3	3	3	3	3	3	3	3	3	3
131	590-506	CD4011	U53,57,68, 75	4	4	4	4	4	4	4	4	4	4
132	590-527	CD40161	U33,45,76	3	3	3	3	3	3	3	3	3	3
133	590-528	CD4001	U22,56,69	3	3	3	3	3	3	3	3	3	3
134	590-546	CD4013 ▷1	U19,41,66,81	4	4	4	4	4	4	4	4	4	4
135	590-584	SN74LS244	U71	1	1	1	1	1	1	1	1	1	1
136	590-729	CD4052 ▷1	U27	1	1	1	1	1	1	1	1	1	1
137													
138	590-847	INTEGRATED CIRCUIT, SN74LS245	U63	1	1	1	1	1	1	1	1	1	1
139													
140													
141	540-015	INDUCTOR, FIXED, 1000uH, 5%	L1	1	1	1	1	1	1	1	1	1	1
142	540-057	INDUCTOR, FIXED, 10uH, 5%	L3,4	2	2	2	2	2	2	2	2	2	2
143	540-069	INDUCTOR, FIXED, 3900uH, 10%	L2	1	1	1	1	1	1	1	1	1	1
144													
145													
146	039-323	RESISTOR, NETWORK, 10K OHMS	RN1-3	3	3	3	3	3	3	3	3	3	3
147													
148	066-652	RESISTOR, C.F., 470K OHMS, .25W, 5%	R4,9,26,36,72,82, 92,104,106,167	-	-	10	10	10	10	10	-	-	-
149	066-663	220	R44,165	-	-	2	2	2	2	2	2	-	-
150	066-665	1.0K	R52,71,95,96,144, 149,151,197	8	8	8	8	8	8	8	8	8	8
151	066-666	2.7K	R214,216	2	2	2	2	2	2	2	2	2	2
152	066-668	4.7K	R20,21,75,98,101, 150,152,188,190	9	9	8	8	8	8	8	8	8	9
153	066-673	1M	R70,142	2	2	2	2	2	2	2	2	2	2
154	066-689	2.2K	R2,6,54,99,102, 107,109,123,124, 127-132	15	15	15	15	15	15	15	15	15	15
155													
156	066-652	470K	R4,26,36,72,82,92, 104,106,167	9	9					-	9	9	9
157	066-824	1.5K	R226,227	2	2						-	2	2
158	066-712	22K	R48,49,53,80, 81,85,105, 120,125,145, 148	-	-	1	1	1	-	-	-	-	-
159													
160	066-712	22K	R48,49,53,80,81,85,105, 120,125,145	10	10			-	10	10	10	10	10
161	066-717	47K	R15,23,68	3	3	3	3	3	3	3	3	3	3
162	066-718	5.6K	R7,61,73	3	3	3	3	3	3	3	-	3	3
163	066-812	100	R116	1	1	1	1	1	1		1	1	1
164	066-663	220	R44	1	1						-	1	1
165	066-813	150	R1,40,100	3	3	3	3	3	3	3	3	3	3
166	066-816	390	R41,46,51	3	3	3	3	3	3	3	3	3	3
167	066-820	750	R134	1	1						1	1	1
168	066-821	820	R190	-	-	1	1	1	1		1	1	-
169	066-826	2.0K	R117,153,206	3	3	3	3	3	3	3	3	3	3
170	066-827	RESISTOR, C.F., 3.9K OHMS, .25W, 5%	R25,34	2	2	2	2	2	2	2	2	2	2
171	066-329	RESISTOR, C.F., 6.8K OHMS, .25W, 5%	R33	1	1	1	1	1	1		1	1	1
172	066-842	RESISTOR, C.F., 5.1K OHMS, .25W, 5%	R12	1	1					-	1	1	1

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ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-1	-12	-03	-04	-05	-06	-07	-08	-09	-10
173	066-830	RESISTOR, C.F., 10K OHMS, .25W, 5%	R8,13,16-19, 24,37,56,57	-	-	-	-	-	-	-	-	-	-
174			76,77,90,91,94,97, 114,126 133,146,154,										
175			155,158,159,161-163, 170-176,183-187,189,										
176			191,198-201,207,208, 211,212,29,30,31,32,										
177			209,215,217,218, 220										
178													
179													
180	066-832	18K	R11,88,121,122, 156,168	6	6	6	6	6	6	6	6	6	6
181	066-833	56K	R12 86,89	-	-	3	3	3	3	3	-	-	-
182	066-833	56K	R86,89	2	2					-	2	2	2
183	066-840	680	R169	1	1	1	1	1	1	1	1	1	1
184	066-846	30K	R38,93	2	2	2	2	2	2	2	2	2	2
185	066-847	33K	R166,196,222, 223	4	4	4	4	4	4	4	4	4	4
186	066-845	24K	R10	1	1					-	1	1	1
187	066-849	100K	R5,14,22,42,43,58, 59,60,63,65,66,103,	-	-	21	21	21	-	-	-	-	-
188			108,110,111,112, 115,160,182,210,213										
189	066-849	100K	R5,14,22,42,58,59,60,63, 65,66,103,108,110,111,	-	-			-	20	20	20	-	-
190			112,115,160,182,210,213										
191	066-849	100K	R5,14,22,42,58,63,65, 66,103,108,110,111,112, 115,160,182,210,213	18	18						-	18	18
192													
193	066-856	15K	R35,78,79,87, 118,119,157	7	7	7	7	7	7	7	7	7	7
194													
195	066-858	4.7M	R74	1	1	1	1	1	1	1	1	1	1
196													
197	066-865	12K	R64,67,219, 221	4	4	4	4	4	4	4	4	4	4
198	066-912	82K	R9,165	2	2						-	2	2
199	066-912	82K	R9	-	-					-	1	-	-
200	066-913	220K	R113	1	1	1	1	1	1	1	1	1	1
201	066-938	47	R143	1	1	1	1	1	1	1	1	1	1
202													
203	066-958	75K	R69	1	1	1	1	1	1	1	1	1	1
204	066-830	10K OHMS, .25W, 5%	R8,13,16-19,24,29-32, 37,43,56,57,76,77,90,	-	-			-	61	61	61	-	-
205		91,94,97,114,126,133,146,148,154,155, 158,159,161-163,170-176,183-187,189,											
206		191,198-201,207-209,211,212,215,217, 218,220,224											
207	076-009	68K OHMS, .25W, 5%	R47,50	2	2	2	2	2	2	2	2	2	2
208	076-045	RESISTOR, C.F., 75 OHMS, .25W, 5%	R134	-	-	1	1	1	1	1	-	-	-
209	076-050	RESISTOR, C.F., 270K OHMS, .25W, 5%	R10	-	-	1	1	1	1	1	-	-	-
210	076-045	RESISTOR, C.F., 75 OHMS, .25W, 5%	R225	1	1					-	1	1	1
211	066-818	RESISTOR, C.F., 470 OHMS, .25W, 5%	R174	1	1								1
212													
213	041-454	RESISTOR, FIXED, COMP, 39 OHMS, .5W, 5%	R141	1	1	1	1	1	1	1	1	1	1
214	041-601	RESISTOR, FIXED, COMP, 20 OHMS, .5W, 5%	R3,45	2	2	2	2	2	2	2	2	2	2
215	066-830	RESISTOR, C.F., 10K OHMS, .25W, 5%	R13,16-19,24,29-32,37, 43,56,76,77,90,91,94,	58	58						-	59	58
216		97,114,126,133,146,148,154,155,158,159, 161-163,170-173,175,176,183-187,189,191,198-201,											
217		207-209,211,212,215,217,218,220,224											

LM-1467120

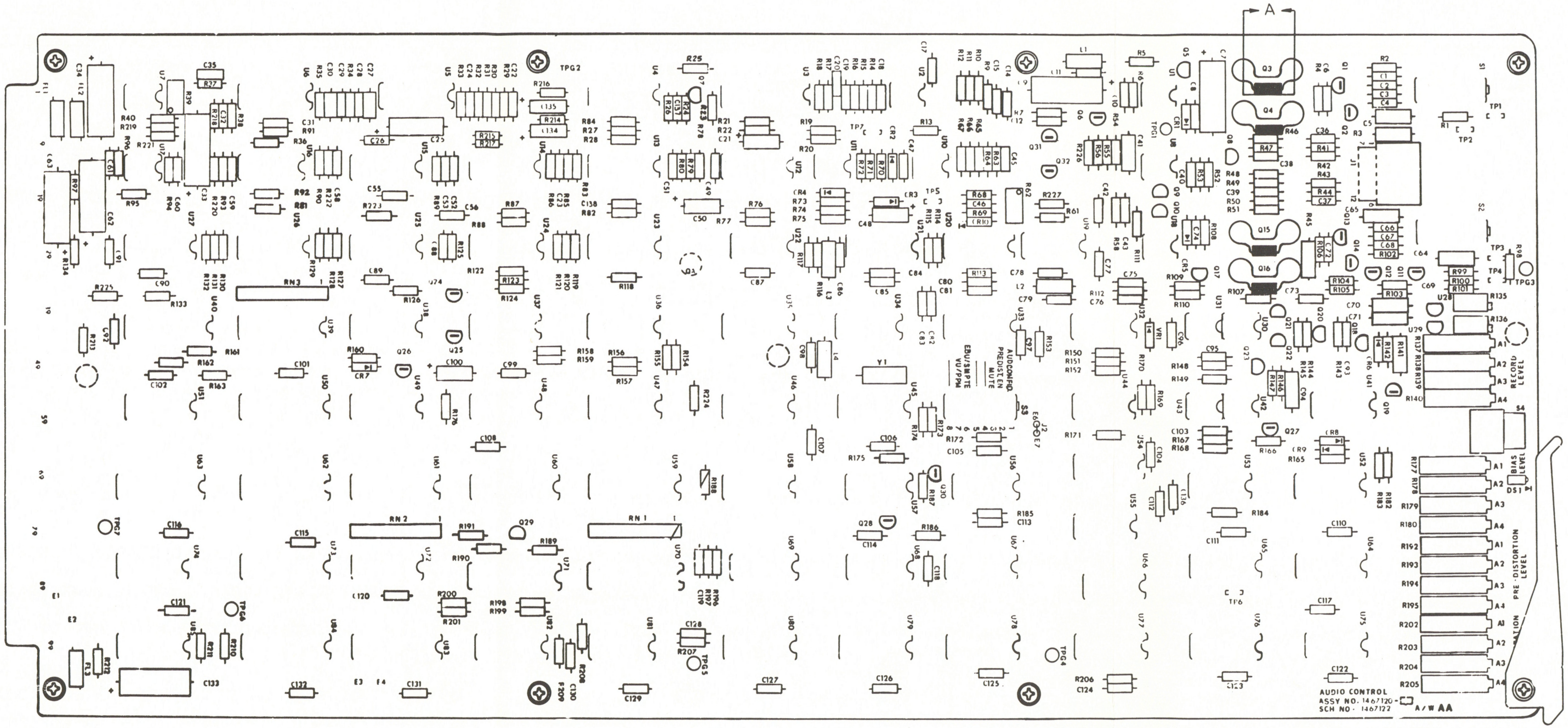
ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-11	-12	-03	-04	-05	-06	-07	-08	-09	-10
218	062-905	RESISTOR, M.F., 536 OHMS, .125W, 1%	R27,83	2	2	2	2	2	2	2	2	2	2
219													
220													
221													
222	066-032	RESISTOR, M.F., 442K OHMS, .125W, 1%	R55,147	2	2	2	2	2	2	2	2	2	2
223	066-081	RESISTOR, M.F., 523 OHMS, .125W, 1%	R28,84	2	2	2	2	2	2	2	2	2	2
224													
225													
226													
227	058-527	RESISTOR, VARIABLE, 20K OHMS, .5W, 10%	R62	1	1	1	1	1	1	1	1	1	1
228	058-566	RESISTOR, VARIABLE, 10K OHMS, .5W, 10%	R135,136	2	2	2	2	2	2	2	2	2	2
229	058-765	RESISTOR, VARIABLE, 50K OHMS, .5W, 10%	R39	1	1	1	1	1	1	1	1	1	1
230													
231	058-343	RESISTOR, VARIABLE, 10K OHMS, .75W, 10%	R137-140, 177-180,192-195,202-205	16	16	16	16	16	16	16	16	16	16
232													
233	066-830	RESISTOR, C.F., 10K OHMS, .25W, 5%	R8,13,16-19,24,29-32, 37,56,57,76,77,90,91, 94,97,114,126,133,146,154,155, 158,159,161-163,170-176,183-187, 189,191,198-201,207-209,211,212, 215,217,218,220,224	-	-	59	59	59	-	-	-	-	-
234													
235													
236													
237	014-780	TRANSISTOR, MPS6514	Q9,21,29	3	3	3	3	3	3	3	3	3	3
238	014-781	MPS6518	Q7,8,10,20, 22,23	6	6	6	6	6	6	6	6	6	6
239													
240													
241													
242	579-018	VN10KM	Q1,2,6,11, 12,13,14,19, 24,25,26,27, 28,30	-	-	14	14	14	14	14	14	-	-
243													
244	579-018	VN10KM	Q1,2,6,11-14,19,24-28,30-32	16	16						-	16	16
245													
246													
247	580-319	2N5555	Q5,17	2	2	2	2	2	2	2	2	2	2
248	580-708	P1086	Q18	1	1	1	1	1	1	1	1	1	1
249	580-757	MJE240	Q4,15	2	2	2	2	2	2	2	2	2	2
250	580-758	TRANSISTOR, MJE250	Q3,16	2	2	2	2	2	2	2	2	2	2
251													
252													
253													
254													
255	119-229	SWITCH, ASSEMBLY, ROCKER, 8 SPST	S3	1	1	1	1	1	1	1	1	1	1
256													
257	119-862	SWITCH, TOGGLE, SPDT	S4	1	1								1
258	122-432	SWITCH, ROTARY, 4PDT, 16 POS	S1,2	2	2	2	2	2	2	2	2	2	2
259													
260													
261	135-423	HEADER ASSEMBLY, 12 POSTS	J1	1	1	1	1	1	1	1	1	1	1
262													

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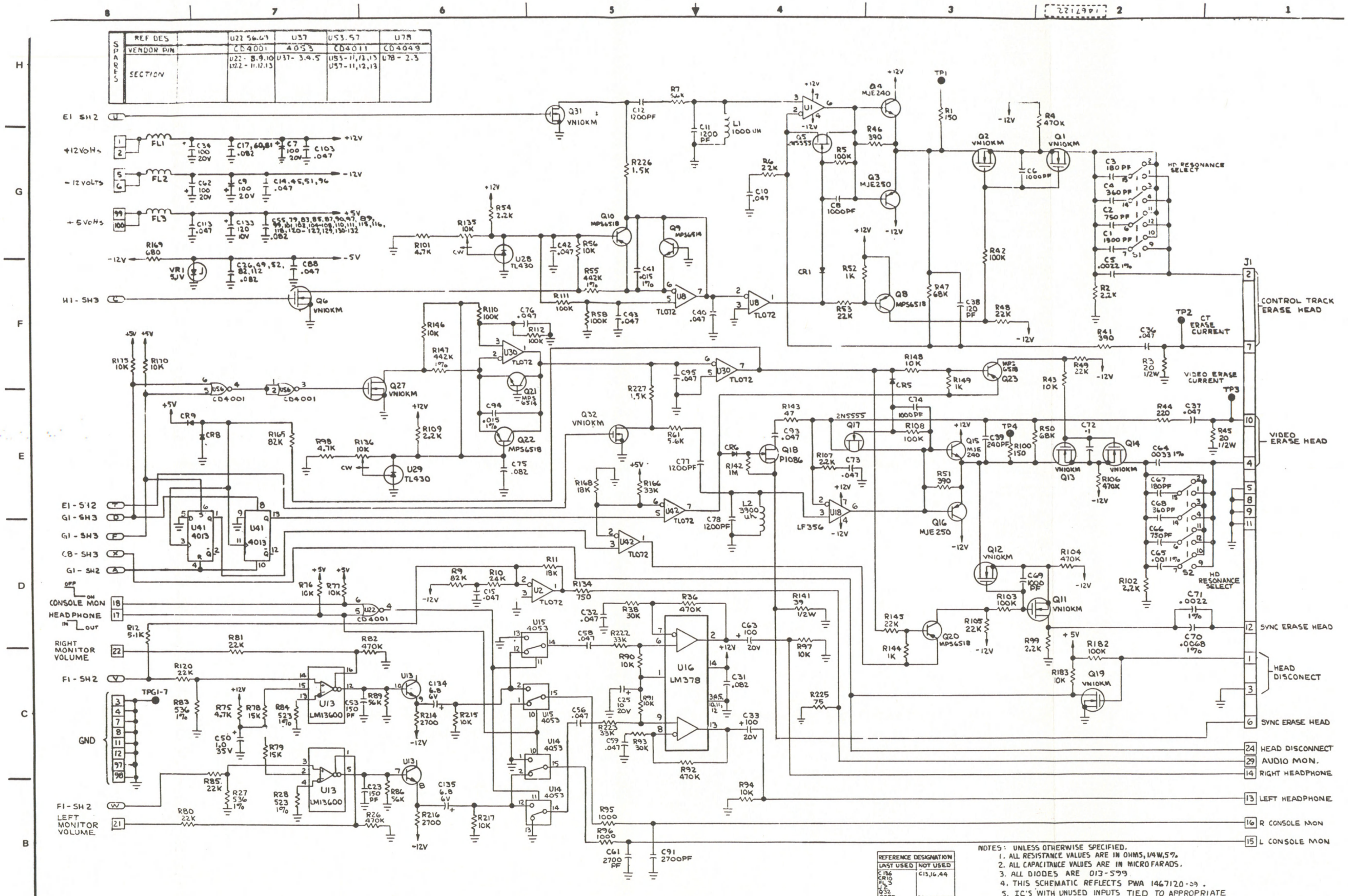
AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467120 SHEET 7	AD

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-11	-12	-03	-04	-05	-06	-07	-08	-09	-10
263	187-259	TERMINAL, PC, TEST POINT	TP1-TP7	7	7	6	6	6	6	6	6	7	7
264													
265	087-388	SILICONE, COMPOUND, GREASE	REF:Q3,4,15,16	A/R	A/R						A/R	A/R	A/R
266	582-361	TRANSISTOR MTG HDW, HEATSINK	REF: Q3,4,15,16	4	4	4	4	4	4	4	4	4	4
267	582-406	INTEGRATED CIRCUIT, MTG HDW, HEATSINK	REF: U16	1	1	1	1	1	1	1	1	1	1
268													
269													
270													
271													
272	435-122	CLIP, CRADLE, .150 ID	REF: Y1	1	1	1	1	1	1	1	1	1	1
273													
274													
275	460-011	RIVET, OVAL HD, TUBULAR, .061 DIA, .125 LG	REF: Y1	2	2	2	2	2	2	2	2	2	2
276													
277													
278													
279	615-004	WIRE, BARE, SOLID, #24 AWG		A/R	A/R		-	A/R	A/R	A/R	A/R	A/R	A/R
280													
281													
282													
283													
284													
285													
286													
287													
288													
289		NOTES:											
290		1 STATIC SENSITIVE, SPECIAL HANDLING											
291		REQUIRED PER AMPEX STD HE1-1.											
292													
293													
294													
295													
296													
297													
298													
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307													

LM-1467120



Assembly No. 1467120-12AD.
Audio Control PWA, A12



SPARES					
REF DES		U22 56.69	U37	U53.57	U78
VENDOR P/N		CD4001	4053	CD4011	CD4049
SECTION		U22 - 8.9.10 U22 - 11.12.13	U37 - 3.4.5	U53-11,12,13 U57-11,12,13	U78 - 2.3

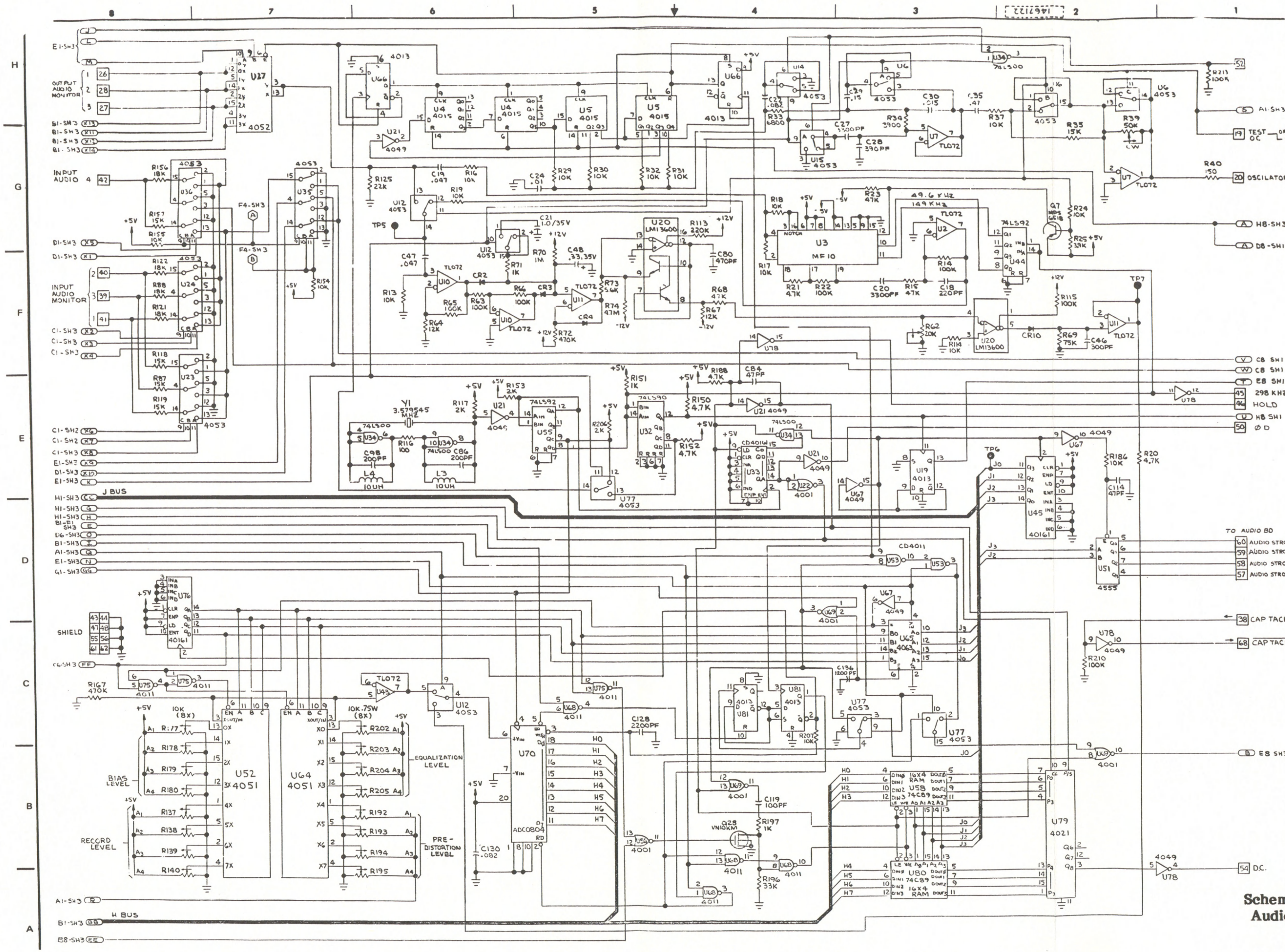
NOTES: UNLESS OTHERWISE SPECIFIED.
1. ALL RESISTANCE VALUES ARE IN OHMS, 1/4W, 5%.
2. ALL CAPACITANCE VALUES ARE IN MICROFARADS.
3. ALL DIODES ARE 013-599
4. THIS SCHEMATIC REFLECTS PWA 1467120-59.
5. IC'S WITH UNUSED INPUTS TIED TO APPROPRIATE LOGIC LEVELS.

REFERENCE DESIGNATION	
LAST USED	NOT USED
C136 CR10 FL3 J2 Q32 R227 S3 TP7 U81 VR1 L4 Y1 E7	C13,16,44 R8,57,59,60,181 U9 E6

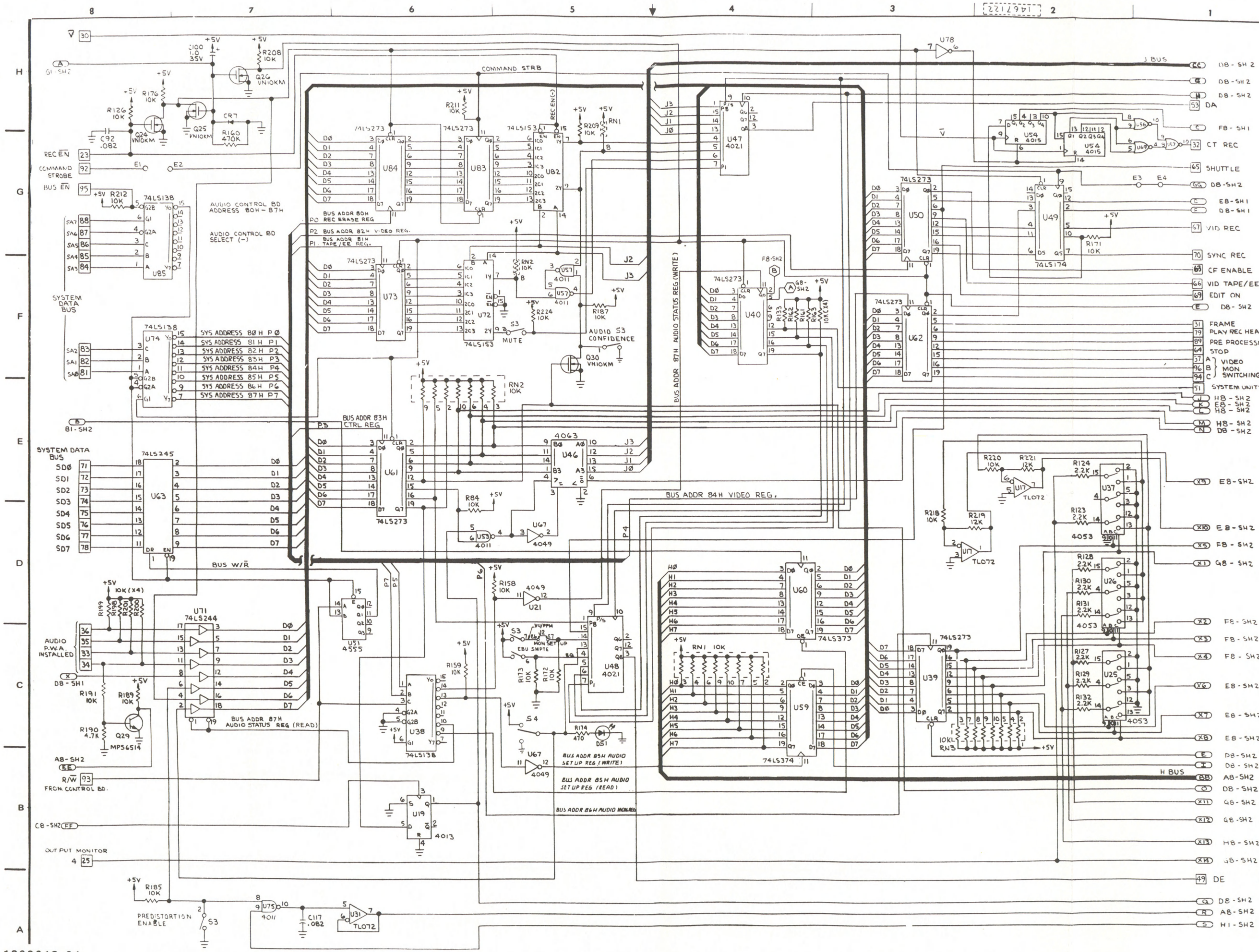
I.C. LIST

REF DES	U34	U38,74,85	U39,40,50,61,62,73,83,84	U46,65	U47,48,79	U49	U51	U52,64	U53,57,68,75	U59	U58,80	U60	U63	U70	U71	U72,82	
AMPEX PN	589-813	589-823	590-335	589-602	001-958	589-830	590-742	590-724	590-506	589-537	589-671	590-565	590-847	000-077	590-584	590-824	
VENDOR PN	74LS00	74LS138	74LS273	CD4063	CD4021	74LS174	CD4555	CD4051	CD4011	74LS374	74C89	74LS373	74LS245	ADC0804	74LS244	74LS153	
VOLTAGE	+5V (14)	+5V (16)	+5V (20)	+5V (16)	+5V (16)	+5V (16)	+5V (16)	+5V (16)	+5V (14)	+5V (20)	+5V (16)	+5V (20)	+5V (20)	+5V (20)	+5V (20)	+5V (16)	
GND	(7)	(8)	(10)	(8)	(8)	(8)	(8)	GND(8)-5V(7)	(7)	(10)	(8)	(10)	(10)	(10)	(10)	(8)	
REF DES	U1,18	U2,7,8,10,11,30,31,42,43	U3	U4,5,54	U6,12,14,15,23-26,35-37,77		U13,20	U16	U17	U19,41,66,81	U21,67,78	U22,56,69	U27	U28,29	U32	U55	U33,45,76
AMPEX PN	589-441	590-502	001-981	590-480	590-450		000-116	589-763	590-502	590-546	590-501	590-528	590-729	000-078	001-956	589-367	590-527
VENDOR PN	LF356	TL072	MF10	CD4015	CD4053		LM13600	LM378	TL072	CD4013	CD4049	CD4001	CD4052	TL430	74LS90	74LS92	CD40161
VOLTAGE	+12V (7)	+12V (8)	+5V (8)	+5V (16)	+5V (16)		+12V (11)	+12V (14)	+12V (8)	+5V (14)	+5V (1)	+5V (14)	+5V (16)	—	+5V (5)	+5V (5)	+5V (16)
GND	-12V (4)	-12V (4)	GND(15)-5V(13)	(8)	GND(6,8)-5V(7)		-12V (6)		-12V (4)	(7)	(8)	(7)	GND(8)-5V(7)	—	(10)	(10)	(8)

Schematic No. 1467122W.
Audio Control PWA, A12
(Sheet 1 of 3)



Schematic No. 1467122W.
Audio Control PWA, A12
(Sheet 2 of 3)



Schematic No. 1467122W.
Audio Control PWA, A12
(Sheet 3 of 3)

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01									
1													
2													
3	1467135	SCHEMATIC		(-)									
4													
5													
6	1400004-01	EJECTOR, PWB		1									
7													
8	1467008-AU	LABEL		1									
9	1467009-01	SHIELD		1									
10	1467149-01	KNOB REF:S1		1									
11													
12													
13	064-314	CAPACITOR, CER., MONO., 1uF, 50V, 20%	C6,7,17,59,61	5									
14													
15	064-670	150pF, 100V, 5%	C37	1									
16	064-681	750pF, 50V, 1%	C66	1									
17	064-684	100pF, 50V, 1%	C38	1									
18													
19													
20	064-699	390pF, 50V, 1%	C8,64	2									
21													
22	064-704	1000pF, 50V, 5%	C9,31,33,43, 45,60,62,73	8									
23	064-705	2200pF, 100V, 5%	C54	1									
24													
25	064-740	62pF, 50V, 1%	C15	1									
26	064-747	.082uF, 50V, 5%	C3,12,26-28, 40,52,53,67-	18									
27			72,74,75,79, 80										
28													
29	064-754	.01uF, 50V, 5%	C11,14	2									
30													
31	064-762	100pF, 100V, 5%	C77,78	2									
32	064-764	470pF, 50V, 5%	C41	1									
33	064-767	4700pF, 50V, 5%	C1,39	2									
34													
35	064-794	8200pF, 50V, 5%	C36	1									
36	064-795	6800pF, 50V, 5%	C51	1									
37	064-799	CAPACITOR, CER., MONO., .22uF, 50V, 5%	C16,18,19,20, 46,48	6									

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467133 SHEET 2 OF 7	REV —

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
38				
39	064-819	CAPACITOR, CER., MONO., 1000pF, 50V, 1%	C22	1
40	064-824	CAPACITOR, CER., MONO., 1800pF, 100V, 1%	C2	1
41	064-825	CAPACITOR, CER., MONO., 2200pF, 50V, 1%	C65	1
42	064-828	CAPACITOR, CER., MONO., 4700pF, 50V, 1%	C21	1
43				
44				
45				
46				
47	055-638	CAPACITOR, POLY., .01uF, 100V, 1%	C63	1
48				
49	055-808	CAPACITOR, POLY., .22uF, 100V, 1%	C30,42,58	3
50	055-809	CAPACITOR, POLY., .047uF, 100V, 1%	C40,50	2
51	055-858	CAPACITOR, POLY., .022uF, 100V, 1%	C35	1
52				
53	055-906	CAPACITOR, POLY., .082uF, 100V, 1%	C13,32,44	3
54				
55	055-911	CAPACITOR, POLY., .47uF, 100V, 1%	C10,34,47	3
56				
57				
58				
59	037-164	CAPACITOR, TANT., 1.0uF, 35V, 10%	C56,57	2
60	037-750	CAPACITOR, TANT., 68uF, 20V, 20%	C4,23,24,29,76	5
61	037-754	CAPACITOR, TANT., 180uF, 10V, 10%	C55	1
62				
63				
64	037-991	CAPACITOR, TANT., 22uF, 15V, 10%	C5	1
65				
66				
67				
68	013-599	DIODE, SWITCHING, CD458	CR1-18	18
69				
70				
71	051-770	FERRITE-CHOKE	L1-4	4
72				
73				
74				
75	000-031	INTEGRATED CIRCUIT, VFQ-1C	U19	1
76	000-036	INTEGRATED CIRCUIT, MC14573	U10,27,39,49, 58,59,61,81	8
77				
78				
79	001-024	INTEGRATED CIRCUIT, 74C244 ▷3	U56,67,78	3
80				
81	002-081	INTEGRATED CIRCUIT, MC14490FP	U12	1
82	002-879	INTEGRATED CIRCUIT, CD4044 ▷3	U6	1

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ITEM NO	PART NUMBER	DESCRIPTION		REF DESIG	QTY REQD PER DASH NUMBER -01
83	587-958	INTEGRATED CIRCUIT, CD4002	3	U28	1
84					
85	589-823	INTEGRATED CIRCUIT, 74LS138		U68,79	2
86	589-974	LM317LZ		U50	1
87					
88					
89	590-444	CD4082	3	U40	1
90	590-450	CD4053		U2,35,37,38, 47,48,60,80. 82	9
91					
92	590-477	CD4025		U74	1
93					
94	590-480	CD4015	3	U9	1
95	590-486	MC14538		U1,3,14,16, 30,42	6
96	590-488	CD4502	3	U17	1
97	590-489	CD4030		U31	1
98					
99					
100	590-492	CD4075		U75	1
101	590-493	CD4043	3	U73	1
102					
103					
104	590-502	TL072		U69,70	2
105	590-505	CD4008	3	U51	1
106	590-506	CD4011		U65	1
107					
108	590-508	CD4072		U44	1
109	590-509	CD4073		U4	1
110	590-528	CD4001	3	U7,18	2
111					
112					
113	590-542	LM311		U71,72	2
114	590-546	CD4013	3	U13,15,21,23, 24,26,32,36, 41,43	10
115					
116					
117	590-556	CD4081		U8,29,64,76	4
118					
119	590-571	CD4029		U25,33,34,45, 46,52,53	7
120					
121	590-592	CD4069		U11,77	2
122	590-593	CD4071		U5,20,22,54,63	5
123					
124					
125	590-773	INTEGRATED CIRCUIT, 74C374	3	U55,66	2
126					
127					

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ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
128	590-847	INTEGRATED CIRCUIT, 74LS245	U57	1
129				
130				
131				
132				
133	041-789	RESISTOR, C.C., 6.8M OHMS, .25W, 5%	R25	1
134				
135				
136				
137	066-652	RESISTOR, C.F., 470K OHMS, .25W, 5%	R116-120	5
138	066-665	1K	R41,42,124,126	4
139	066-668	4.7K	R105,159-165	8
140				
141				
142	066-673	1M	R73,74,99,108, 123,141	6
143				
144				
145	066-711	7.5K	R44,47	2
146	066-717	47K	R1	1
147				
148				
149	066-812	100	R169	1
150				
151	066-830	10K	R27,32,33,35, 36,38,39,97, 101-104,106, 107,166-168, 173-177	22
152				
153				
154				
155				
156	066-842	5.1K	R23,152,158	3
157	066-847	33K	R146,157	2
158	066-849	100K	R15,26,49	3
159	066-850	240K	R29,31	2
160	066-852	62K	R109	1
161	066-853	200K	R24,28,170,171	4
162	066-858	4.7M	R30	1
163	066-859	240	R94	1
164				
165				
166	066-866	27K	R20,59,69,87, 121,127,143, 181	8
167				
168				
169	066-873	RESISTOR, C.F., 20K OHMS, .25W, 5%	R110-115,172	7
170				
171				
172				

LM-1467133

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01
173	066-928	RESISTOR, C.F., 2.4K OHMS, .25W, 5%	R40,43,45	3
174				
175				
176	066-974	RESISTOR, C.F., 150K OHMS, .25W, 5%	R34	1
177				
178				
179				
180	076-015	RESISTOR, C.F., 3.3M OHMS, .25W, 5%	R63,156	2
181	076-053	RESISTOR, C.F., 390K OHMS, .25W, 5%	R56,66,96	3
182				
183				
184				
185	042-332	RESISTOR, M.F., 24.9K OHMS, .125W, 1%	R12	1
186				
187				
188	062-601	100K	R22,48,50,51, 53,57,58,60,	32
189			62,67,68,70, 71,75,81,125,	
190			128,129,133,136, 137,140,145,150,	
191			178,180,183,184, 186-188,190	
192				
193				
194	062-624	1K	R3	1
195	062-643	2K	R4	1
196				
197				
198	062-796	1M	R2,18,21,76, 83,148,151	7
199				
200				
201	062-800	21.5K	R91	1
202				
203	062-884	301	R7	1
204				
205				
206				
207	062-922	909	R8	1
208	062-983	10K	R10,16,17,61, 72,84,132,147	8
209				
210	062-986	12.1K	R86	1
211				
212				
213				
214	066-001	22.6K	R77	1
215	066-003	23.7K	R100	1
216	066-004	RESISTOR, M.F., 24.3K,OHMS, .125W, 1%	R11,80	2
217				

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467133 SHEET 6 OF 7	REV —

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
218	066-009	RESISTOR, M.F., 33.2K OHMS, .125W, 1%	R37	1
219				
220				
221				
222	066-017	75K	R78,79	2
223	066-020	121K	R9	1
224	066-022	200K	R13,130,131, 139,153	5
225				
226	066-028	332K	R93	1
227	066-034	475K	R52,54,64	3
228				
229				
230	066-061	13K	R85	1
231	066-072	301K	R179,182,185, 189	4
232				
233				
234				
235				
236	066-183	60.4K	R98	1
237				
238				
239	066-525	34.8K	R155	1
240				
241				
242	066-656	30.1K	R134	1
243				
244				
245	066-733	49.9K	R82,122	2
246				
247				
248	066-806	43.2K	R90	1
249				
250	066-861	45.3K	R5	1
251				
252				
253	066-927	909K	R154	1
254				
255				
256				
257	076-194	174K	R88	1
258				
259				
260	076-345	41.2K	R144	1
261	076-346	69.8K	R149	1
262	076-348	RESISTOR, M.F., 86.6K OHMS, .125W, 1%	R89	1

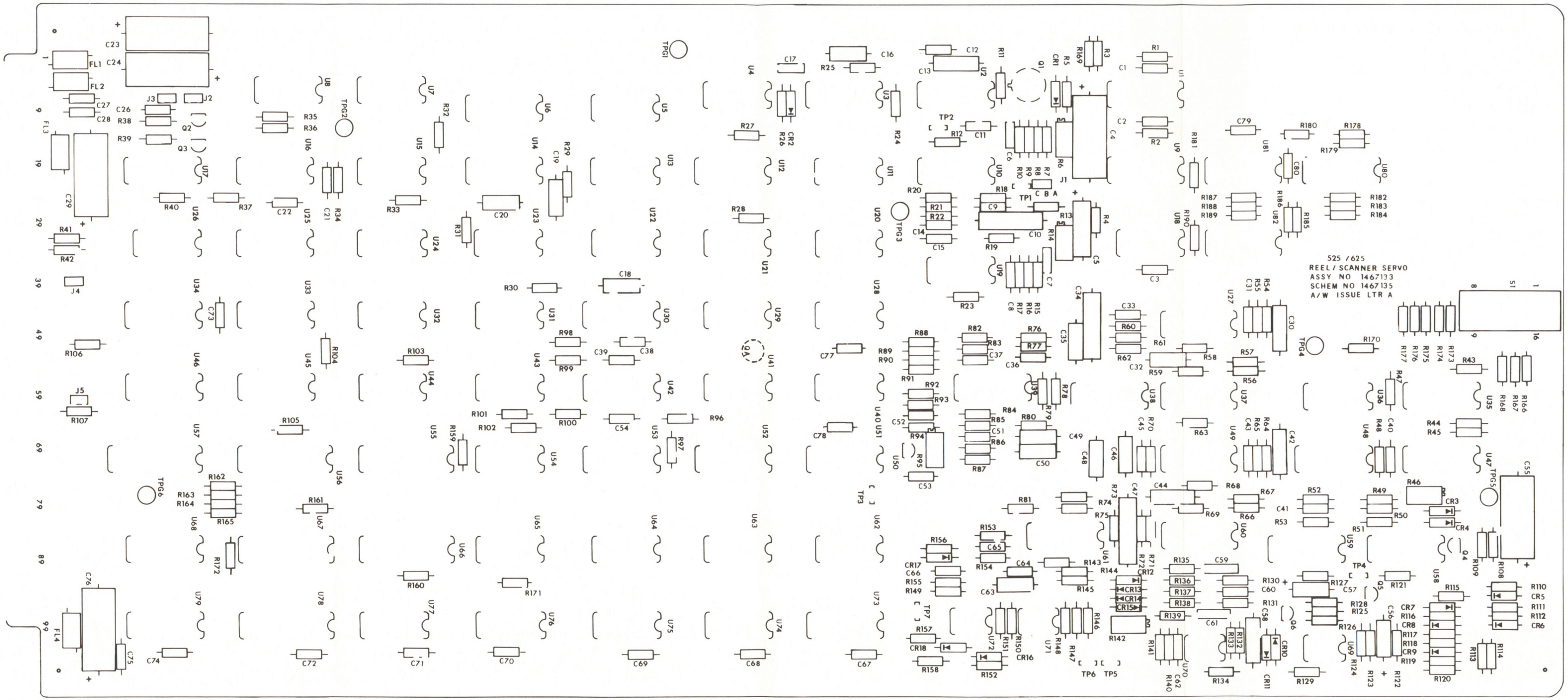
LM-1467133

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
263	076-358	RESISTOR, M.F., 165K OHMS, .125W, 1%	R92	1
264				
265				
266	076-370	RESISTOR, M.F., 402K OHMS, .125W, 1%	R135,138	2
267	076-373	RESISTOR, M.F., 464K OHMS, .125W, 1%	R19	1
268	076-377	RESISTOR, M.F., 576K OHMS, .125W, 1%	R55,65	2
269				
270				
271				
272	058-539	RESISTOR, VARIABLE, 1K OHMS, .5W, 10%	R95	1
273	058-566	RESISTOR, VARIABLE, 10K OHMS, .5W, 10%	R6	1
274	058-868	RESISTOR, VARIABLE, 100K OHMS, .5W, 10%	R14,46,142	3
275				
276				
277				
278	014-631	TRANSISTOR, PNP DUAL	Q1	1
279	014-652	TRANSISTOR, 2N3906	Q4,5	2
280	014-653	TRANSISTOR, 2N3904	Q2,3,6	3
281				
282				
283				
284	119-894	SWITCH, DIP 16 PIN	S1	1
285				
286	140-437	CONNECTOR, SIGNAL CIRCUIT, PLUG, RECT, 250C	REF:J1-5	5
287	173-620	TERMINAL, SWAGE	TPG1-6	6
288	187-055	TERMINAL, WIREWRAP	REF:J1-A,B,C, J2 J5-A,B	11
289				
290	187-259	TERMINAL, PC, TEST POINT	TP1-7	7
291				
292	250-155	BUMPER, PAD, SYNTHETIC RUBBER		3
293				
294	283-105	SPACER, PLAIN, .140 ID X .250 OD X .125 LG		1
295				
296	471-063	SCREW, MACH, PAN HD., XREC DR, 4-40 X .438 LG		1
297	474-500	SCREW, MACH, PAN HD., XREC DR, 4-40 X .312 LG		7
298				
299	477-516	SCREW, SET, CUP POINT, HEX SOC DR., 4-40 X .188 LG	REF:S1	1
300				
301				
302	502-002	WASHER, LOCK, HELICAL SPRING, #4		1
303	506-011	WASHER, BOWED		1

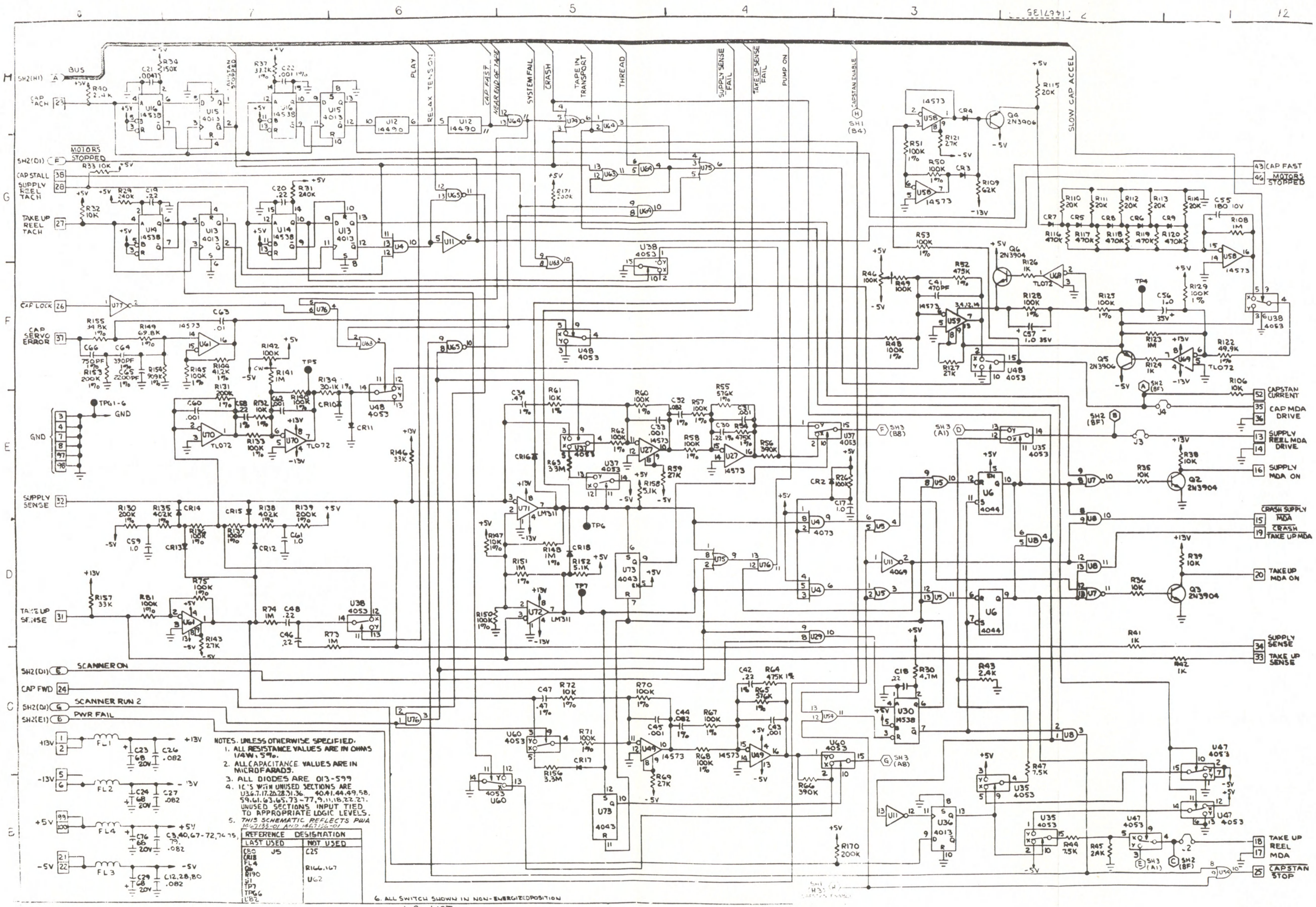
NOTES:

3 STATIC SENSITIVE DEVICE, SPECIAL HANDLING REQUIRED PER AMPEX STD HE1-1.

LM-1467133



Assembly No. 1467133-01-.
Reel and Scanner Servo PWA, A14,
NTSC, PAL-M (Late).

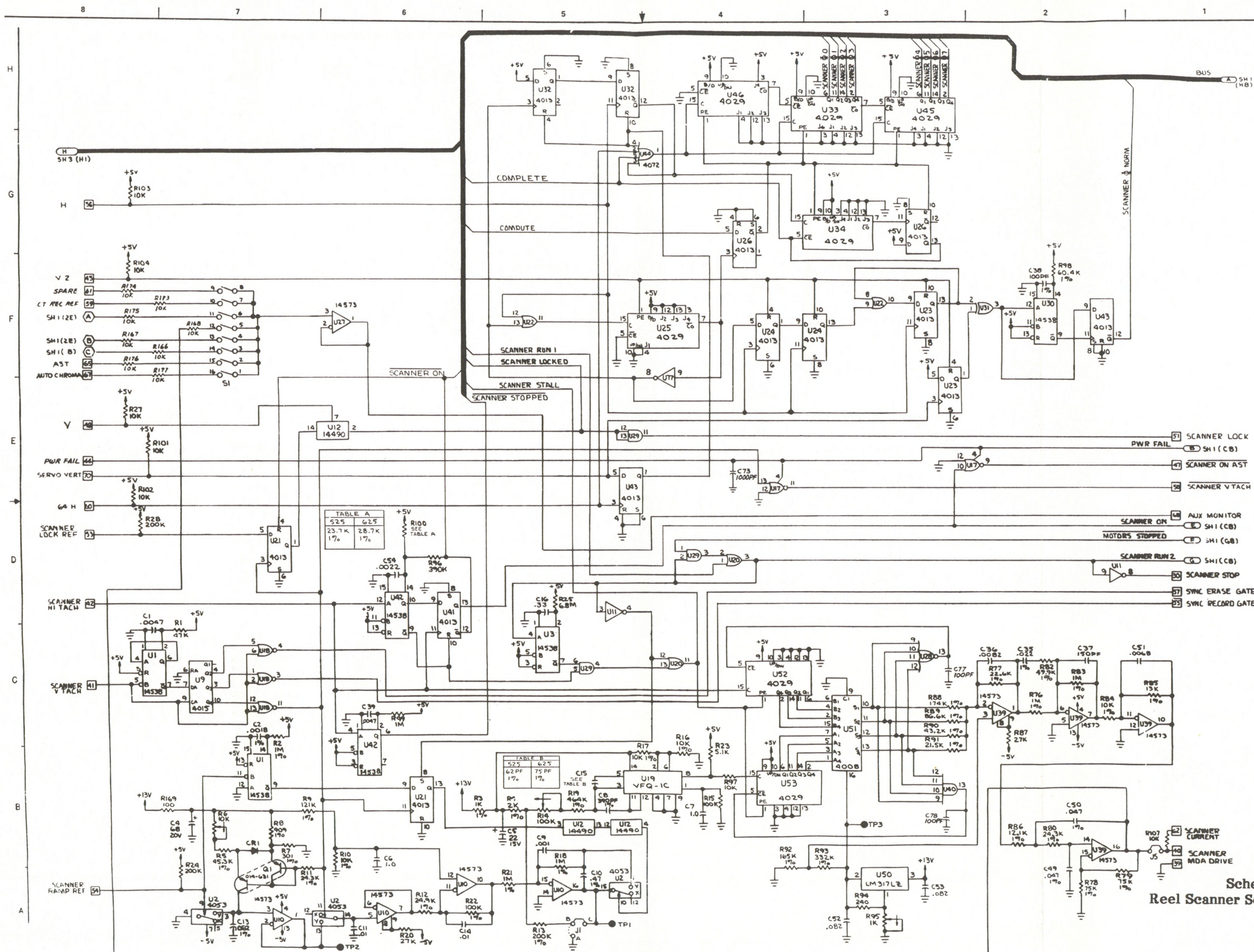


I. C. LIST

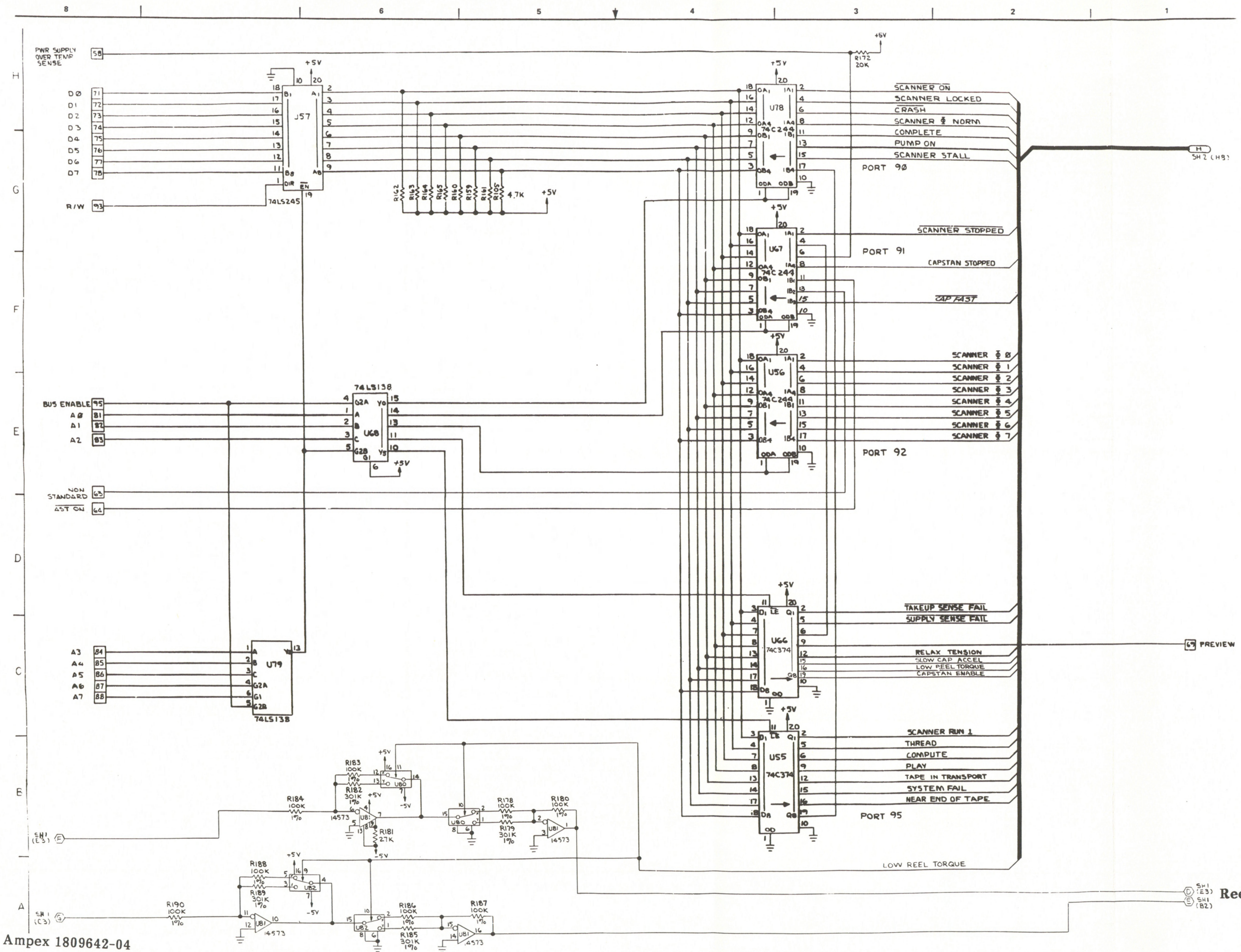
REF DES	U10,22,39,44,58,59,61	U11,72	U50	U28	U40	U19		U44		U55,66	U31	U17		U9	U74	U68,79	U57	U56,67,78
AMPEX P/N	000-036	590-542	589-974	587-958	590-444	000-031		590-508		590-773	590-489	590-488		590-480	590-477	589-823	590-847	001-024
VENDOR P/N	MC14573	LM311	LM317LZ	CD4002	CD4082	VFQIC		CD4072		74C374	CD4030	CD4502		CD4015	CD4025	74LS138	74LS245	74C244
VCC	+5V (4)	+13V (8)	+13V (3)	+5V (14)	+5V (14)			+5V (14)		+5V (20)	+5V (14)	+5V (16)		+5V (16)	+5V (14)	+5V (16)	+5V (20)	+5V (20)
VSS	-5V (13)	-13V (4)		GND (7)	GND (7)			GND (7)		GND (10)	GND (7)	GND (8)		GND (8)	GND (7)	GND (8)	GND (10)	GND (10)

REF DES	U13,15,21,23,24,26,32,36,41,43	U65	U2,35,37,38,47,48,60	U12	U1,3,14,16,30,42	U6	U5,20,22,54,63	U75	U7,18	U8,29,64,76	U11,77	U4	U69,70	U51	U25,33,34,45,46,52,53	U73
AMPEX P/N	590-546	590-506	590-450	002-081	590-486	002-879	590-593	590-492	590-528	590-556	590-592	590-509	590-502	590-505	590-571	590 493
VENDOR P/N	CD4013	CD4011	CD4053	MC14490	MC14538	CD4044	CD4071	CD4075	CD4001	CD4081	CD4069	CD4073	TL072	CD4008	CD4029	CD4043
VCC	+5V (14)	+5V (14)	+5V (16)	+5V (16)	+5V (16)	+5V (16)	+5V (14)	+5V (14)	+5V (14)	[illegible]	+5V (14)	+5V (14)	+13V (8)	+5V (16)	+5V (16)	+5V (16)
VSS	GND (7)	GND (7)	GND (8) 16 -5V (7)	GND (8)	GND (8)	GND (8)	GND (7)	GND (7)	[illegible]	[illegible]	GND (7)	GND (7)	-13V (4)	GND (8)	GND (8)	GND (8)

Schematic No. 1467135—.
Reel Scanner Servo PWA, A14 (Late)
(Sheet 1 of 3)



Schematic No. 1467135—.
Reel Scanner Servo PWA, A14 (Late)
(Sheet 2 of 3)



Schematic No. 1467135—.
Reel Scanner Servo PWA, A14 (Late)
(Sheet 3 of 3)

Ampex 1809642-04

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01
1				
2				
3	1467135	SCHEMATIC		(-)
4				
5				
6	1400004-01	EJECTOR, PWB		1
7				
8	1467008-AV	LABEL		1
9	1467009-01	SHIELD		1
10	1467149-01	KNOB	REF:S1	1
11				
12				
13	064-314	CAPACITOR, CER., MONO., 1uF, 50V, 20%	C6,7,17,59,61	5
14				
15	064-670	150pF, 100V, 5%	C37	1
16	064-681	750pF, 50V, 1%	C66	1
17	064-684	100pF, 50V, 1%	C38	1
18				
19	064-695	75pF, 50V, 1%	C15	1
20	064-699	390pF, 50V, 1%	C8,64	2
21				
22	064-704	1000pF, 50V, 5%	C9,31,33,43, 45,60,62,73	8
23	064-705	2200pF, 100V, 5%	C54	1
24				
25				
26	064-747	.082uF, 50V, 5%	C3,12,26-28, 40,52,53,67-	18
27			72,74,75,79, 80	
28				
29	064-754	.01uF, 50V, 5%	C11,14	2
30				
31	064-762	100pF, 100V, 5%	C77,78	2
32	064-764	470pF, 50V, 5%	C41	1
33	064-767	4700pF, 50V, 5%	C1,39	2
34				
35	064-794	8200pF, 50V, 5%	C36	1
36	064-795	6800pF, 50V, 5%	C51	1
37	064-799	CAPACITOR, CER., MONO., .22uF, 50V, 5%	C16,18,19,20, 46,48	6

LM-140/100

AMPEX | Ampex Corporation, Redwood City, California | CODE IDENT NO 92739 | LIST OF MATERIALS | LM-1467136 SHEET 2 OF 7 | REV —

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01									
38													
39	064-819	CAPACITOR, CER., MONO., 1000pF, 50V, 1%	C22	1									
40	064-824	CAPACITOR, CER., MONO., 1800pF, 100V, 1%	C2	1									
41	064-825	CAPACITOR, CER., MONO., 2200pF, 50V, 1%	C65	1									
42	064-828	CAPACITOR, CER., MONO., 4700pF, 50V, 1%	C21	1									
43													
44													
45													
46													
47	055-638	CAPACITOR, POLY., .01uF, 100V, 1%	C63	1									
48													
49	055-808	CAPACITOR, POLY., .22uF, 100V, 1%	C30,42,58	3									
50	055-809	CAPACITOR, POLY., .047uF, 100V, 1%	C40,50	2									
51	055-858	CAPACITOR, POLY., .022uF, 100V, 1%	C35	1									
52													
53	055-906	CAPACITOR, POLY., .082uF, 100V, 1%	C13,32,44	3									
54													
55	055-911	CAPACITOR, POLY., .47uF, 100V, 1%	C10,34,47	3									
56													
57													
58													
59	037-164	CAPACITOR, TANT., 1.0uF, 35V, 10%	C56,57	2									
60	037-750	CAPACITOR, TANT., 68uF, 20V, 20%	C4,23,24,29,76	5									
61	037-754	CAPACITOR, TANT., 180uF, 10V, 10%	C55	1									
62													
63													
64	037-991	CAPACITOR, TANT., 22uF, 15V, 10%	C5	1									
65													
66													
67													
68	013-599	DIODE, SWITCHING, CD458	CR1-18	18									
69													
70													
71	051-770	FERRITE-CHOKE	L1-4	4									
72													
73													
74													
75	000-031	INTEGRATED CIRCUIT, VFQ-1C	U19	1									
76	000-036	INTEGRATED CIRCUIT, MC14573	U10,27,39,49, 58,59,61,81	8									
77													
78													
79	001-024	INTEGRATED CIRCUIT, 74C244 (3)	U56,67,78	3									
80													
81	002-081	INTEGRATED CIRCUIT, MC14490FP	U12	1									
82	002-879	INTEGRATED CIRCUIT, CD4044 (3)	U6	1									

LM-1467136

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
83	587-958	INTEGRATED CIRCUIT, CD4002 (3)	U28	1
84				
85	589-823	INTEGRATED CIRCUIT, 74LS138	U68,79	2
86	589-974	LM317LZ	U50	1
87				
88				
89	590-444	CD4082 (3)	U40	1
90	590-450	CD4053	U2,35,37,38, 47,48,60,80. 82	9
91				
92	590-477	CD4025	U74	1
93				
94	590-480	CD4015 (3)	U9	1
95	590-486	MC14538	U1,3,14,16, 30,42	6
96	590-488	CD4502 (3)	U17	1
97	590-489	CD4030	U31	1
98				
99				
100	590-492	CD4075	U75	1
101	590-493	CD4043 (3)	U73	1
102				
103				
104	590-502	TL072	U69,70	2
105	590-505	CD4008 (3)	U51	1
106	590-506	CD4011	U65	1
107				
108	590-508	CD4072	U44	1
109	590-509	CD4073	U4	1
110	590-528	CD4001 (3)	U7,18	2
111				
112				
113	590-542	LM311	U71,72	2
114	590-546	CD4013 (3)	U13,15,21,23, 24,26,32,36, 41,43	10
115				
116				
117	590-556	CD4081	U8,29,64,76	4
118				
119	590-571	CD4029	U25,33,34,45, 46,52,53	7
120				
121	590-592	CD4069	U11,77	2
122	590-593	CD4071	U5,20,22,54,63	5
123				
124				
125	590-773	INTEGRATED CIRCUIT, 74C374 (3)	U55,66	2
126				
127				

LM-1467136

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
128	590-347	INTEGRATED CIRCUIT, 74LS245	U57	1
129				
130				
131				
132				
133	041-789	RESISTOR, C.C., 6.8M OHMS, .25W, 5%	R25	1
134				
135				
136				
137	066-652	RESISTOR, C.F., 470K OHMS, .25W, 5%	R116-120	5
138	066-665	1K	R41,42,124,126	4
139	066-668	4.7K	R105,159-165	8
140				
141				
142	066-673	1M	R73,74,99,108, 123,141	6
143				
144				
145	066-711	7.5K	R44,47	2
146	066-717	47K	R1	1
147				
148				
149	066-812	100	R169	1
150				
151	066-830	10K	R27,32,33,35, 36,38,39,97, 101-104,106, 107,166-168, 173-177	22
152				
153				
154				
155				
156	066-842	5.1K	R23,152,158	3
157	066-847	33K	R146,157	2
158	066-849	100K	R15,26,49	3
159	066-850	240K	R29,31	2
160	066-852	62K	R109	1
161	066-853	200K	R24,28,170,171	4
162	066-858	4.7M	R30	1
163	066-859	240	R94	1
164				
165				
166	066-866	27K	R20,59,69,87, 121,127,143, 181	8
167				
168				
169	066-873	RESISTOR, C.F., 20K OHMS, .25W, 5%	R110-115,172	7
170				
171				
172				

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
173	066-928	RESISTOR, C.F., 2.4K OHMS, .25W, 5%	R40,43,45	3
174				
175				
176	066-974	RESISTOR, C.F., 150K OHMS, .25W, 5%	R34	1
177				
178				
179				
180	076-015	RESISTOR, C.F., 3.3M OHMS, .25W, 5%	R63,156	2
181	076-053	RESISTOR, C.F., 390K OHMS, .25W, 5%	R56,66,96	3
182				
183				
184				
185	042-332	RESISTOR, M.F., 24.9K OHMS, .125W, 1%	R12	1
186				
187				
188	062-601	100K	R22,48,50,51, 53,57,58,60, 62,67,68,70, 71,75,81,125, 128,129,133,136, 137,140,145,150, 178,180,183,184, 186-188,190	32
189				
190				
191				
192				
193				
194	062-624	1K	R3	1
195	062-643	2K	R4	1
196				
197				
198	062-796	1M	R2,18,21,76, 83,148,151	7
199				
200				
201	062-800	21.5K	R91	1
202				
203	062-884	301	R7	1
204				
205				
206				
207	062-922	909	R8	1
208	062-983	10K	R10,16,17,61, 72,84,132,147	8
209				
210	062-986	12.1K	R86	1
211				
212				
213				
214	066-001	22.6K	R77	1
215				
216	066-004	RESISTOR, M.F., 24.3K,OHMS, .125W, 1%	R11,80	2
217				

LM-1467136

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467136 SHEET 6 OF 7	REV —

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01									
218	066-009	RESISTOR, M.F., 33.2K OHMS, .125W, 1%	R37	1									
219													
220													
221													
222	066-017	75K	R78,79	2									
223	066-020	121K	R9	1									
224	066-022	200K	R13,130,131, 139,153	5									
225													
226	066-028	332K	R93	1									
227	066-034	475K	R52,54,64	3									
228													
229													
230	066-061	13K	R85	1									
231	066-072	301K	R179,182,185, 189	4									
232													
233													
234													
235	066-181	28.7K	R100	1									
236	066-183	60.4K	R98	1									
237													
238													
239	066-525	34.8K	R155	1									
240													
241													
242	066-656	30.1K	R134	1									
243													
244													
245	066-733	49.9K	R82,122	2									
246													
247													
248	066-806	43.2K	R90	1									
249													
250	066-861	45.3K	R5	1									
251													
252													
253	066-927	909K	R154	1									
254													
255													
256													
257	076-194	174K	R88	1									
258													
259													
260	076-345	41.2K	R144	1									
261	076-346	69.8K	R149	1									
262	076-348	RESISTOR, M.F., 86.6K OHMS, .125W, 1%	R89	1									

LM-1467136

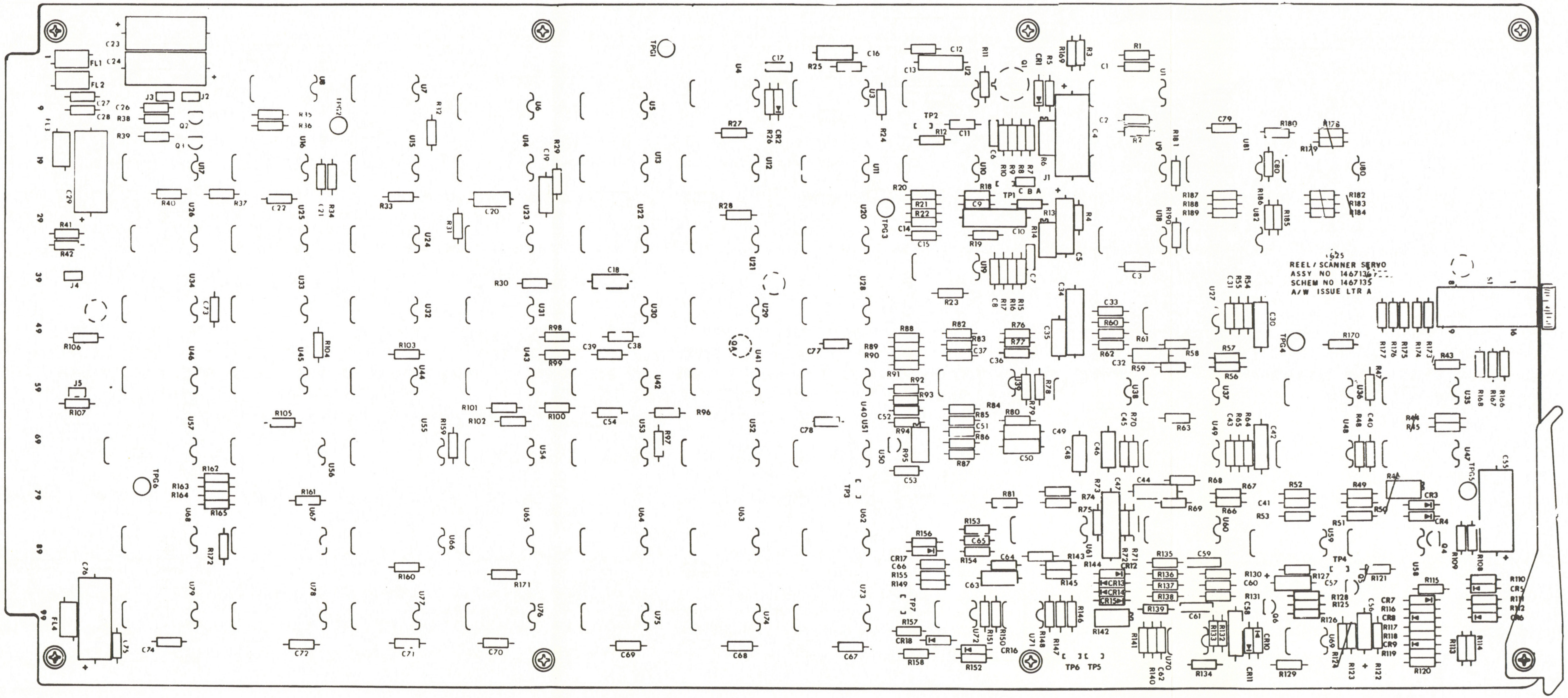
AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA | CODE IDENT NO 92739 | LIST OF MATERIALS | LM-1467136 | SHEET 7 OF 7 | REV —

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01
263	076-358	RESISTOR, M.F., 165K OHMS, .125W, 1%	R92	1
264				
265				
266	076-370	RESISTOR, M.F., 402K OHMS, .125W, 1%	R135,138	2
267	076-373	RESISTOR, M.F., 464K OHMS, .125W, 1%	R19	1
268	076-377	RESISTOR, M.F., 576K OHMS, .125W, 1%	R55,65	2
269				
270				
271				
272	058-539	RESISTOR, VARIABLE, 1K OHMS, .5W, 10%	R95	1
273	058-566	RESISTOR, VARIABLE, 10K OHMS, .5W, 10%	R6	1
274	058-868	RESISTOR, VARIABLE, 100K OHMS, .5W, 10%	R14,46,142	3
275				
276				
277				
278	014-631	TRANSISTOR, PNP DUAL	Q1	1
279	014-652	TRANSISTOR, 2N3906	Q4,5	2
280	014-653	TRANSISTOR, 2N3904	Q2,3,6	3
281				
282				
283				
284	119-894	SWITCH, DIP 16 PIN	S1	1
285				
286	140-437	CONNECTOR, SIGNAL CIRCUIT, PLUG, RECT, 2SOC	REF:J1-5	5
287	173-620	TERMINAL, SWAGE	TPG1-6	6
288	187-055	TERMINAL, WIREWRAP	REF:J1-A,B,C, J2-J5-A,B	11
289				
290	187-259	TERMINAL, PC, TEST POINT	TP1-7	7
291				
292	250-155	BUMPER, PAD, SYNTHETIC RUBBER		3
293				
294	283-105	SPACER, PLAIN, .140 ID X .250 OD X .125 LG		1
295				
296	471-063	SCREW, MACH, PAN HD., XREC DR, 4-40 X .438 LG		1
297	474-500	SCREW, MACH, PAN HD., XREC DR, 4-40 X .312 LG		7
298				
299	477-516	SCREW, SET, CUP POINT, HEX SOC DR., 4-40 X .188 LG	REF:S1	1
300				
301				
302	502-002	WASHER, LOCK, HELICAL SPRING, #4		1
303	506-011	WASHER, BOWED		1

NOTES:

3 ▷ STATIC SENSITIVE DEVICE, SPECIAL HANDLING REQUIRED PER AMPEX STD HE1-1.

LM-1467136



Assembly No. 1467136-01-.
Reel and Scanner Servo PWA, A14,
PAL/SECAM (Late).

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06				
1													
2													
3	1467142	SCHEMATIC		J		L	N	N	P				
4	1467149-01	KNOB	REF: S1	1		1	1	1	1				
5	1400004-01	EJECTOR, PWB		1		1	1	1	1				
6	1467008-AU	LABEL		1		1	1	1	1				
7	1467009-01	SHIELD		1		1	1	1	1				
8	250-155	BUMPER, PAD, SYNTHETIC RUBBER		3		3	3	3	3				
9	283-105	SPACER, PLAIN, .140 ID X .250 OD X .125 LG		1		1	1	1	1				
10	471-063	SCREW, MACH, PAN HD, XREC DR, 4-40 X .438 LG		1		1	1	1	1				
11	474-500	SCREW, MACH, PAN HD, XREC DR, 4-40 X .312 LG		7		7	7	7	7				
12	502-002	WASHER, LOCK, HELICAL SPRING, #4		1		1	1	1	1				
13	506-011	WASHER, BOWED		1		1	1	1	1				
14													
15													
16	064-314	CAPACITOR, CER. MONO, 1uF, 50V, 20%	C6,7,17,59, 61	5	5	5	5	5	5				
17													
18	064-670	150pF, 100V, 5%	C37	1			1	1	1				
19													
20	064-684	100pF, 50V, 1%	C38	1			1	1	1				
21													
22	064-699	390pF, 50V, 1%	C8,64	2	2	2	2	2	2				
23													
24	064-704	1000pF, 50V, 5%	C9,31,33,43, 45,60,62,73	8	8	8	8	8	8				
25	064-705	2200pF, 100V, 5%	C54	1			1	1	1				
26													
27	064-740	62pF, 50V, 1%	C15	1			1	1	1				
28	064-747	.082uF, 50V, 5%	C3,12,26-28,40, 52,53,67-72,74,75	16	16	16	16	16	16				
29	064-754	.01uF, 50V, 5%	C11,14	2	2	2	2	2	2				
30													
31	064-762	100pF, 100V, 5%	C77,78	2	2	2	2	2	2				
32	064-764	470pF, 50V, 5%	C41	1			1	1	1				
33	064-767	4700pF, 50V, 5%	C1,39	2	2	2	2	2	2				
34	064-681	750pF, 50V, 1%	C66	1			1	1	1				
35													
36	064-794	8200pF, 50V, 5%	C36	1				1	1				
37	064-795	CAPACITOR, CER. MONO, 6800pF, 50V, 5%	C51	1				1	1				

LM-1467140

AMPEX | Ampex Corporation, Redwood City, California	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467140 SHEET 2	REV T

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06				
38	064-799	CAPACITOR, CER. MONO, .22uF, 50V, 5%	C18,19,20 46, 48	6	[illegible]	6	6	[illegible]	5				
39	064-819	↕ ↕ ↕ 1000pF, 50V, 1%	C22	1	[illegible]	1	1	[illegible]	1				
40	064-824	↕ ↕ ↕ 1800pF, 100V, 1%	C2	1	[illegible]	1	1	[illegible]	1				
41	064-825	↕ ↕ ↕ 2200pF, 50V, 1%	C65	1	[illegible]	1	1	[illegible]	1				
42	064-828	CAPACITOR, CER. MONO, 4700pF, 50V, 1%	C21	1	[illegible]	1	1	[illegible]	2				
43	064-797	CAPACITOR, CER. MONO, .33uF, 50V, 20%	C16						1				
44													
45													
46													
47													
48													
49													
50													
51	055-638	CAPACITOR, POLY, .01uF, 100V, 1%	C63	1	[illegible]	1	1	[illegible]	1				
52	055-808	CAPACITOR, POLY, .22uF, 100V, 1%	C30,42,58	3	3	3	3	3	3				
53	055-809	↕ ↕ .047uF, ↕ ↕	C49,50	2	2	2	2	2	2				
54	055-858	↕ ↕ .022uF, ↕ ↕	C35	1	[illegible]	1	1	[illegible]	1				
55	055-906	↕ ↕ .082uF, ↕ ↕	C13,32,44	3	3	3	3	3	3				
56		↕ ↕ ↕ ↕											
57	055-911	CAPACITOR, POLY, .47uF, 100V, 1%	C10, 4 47	3	[illegible]	3	3	3	3				
58													
59													
60													
61	037-164	CAPACITOR, TANT, 1.0uF, 35V, 10%	C56,57	2	2	2	2	2	2				
62	037-750	CAPACITOR, TANT, 68uF, 20V, 20%	C4,23,24,29,76	5	[illegible]	5	5	5	5				
63	037-754	CAPACITOR, TANT, 180uF, 10V, 10%	C55	1	[illegible]	1	1	[illegible]	1				
64													
65													
66	037-991	CAPACITOR, TANT, 22uF, 15V, 10%	C5	1	[illegible]	1	1	[illegible]	1				
67													
68													
69													
70													
71	013-599	DIODE, SWITHCING, CD458	CR1-18	18	18	18	18	18	18				
72													
73													
74	051-770	FERRITE-CHOKE	L1-4	[illegible]	4	4	4	4	4				
75													
76													
77													
78													
79													
80													
81													
82													

LM-1467140

ITEM NO	PART NUMBER	DESCRIPTION		REF DESIG	-01	-02	-03	-04	-05	-06
83	000-031	INTEGRATED CIRCUIT, VFQ-1C		U19	1		1	1	1	1
84	000-036	MC14573		U10,27,39,49, 58,59,61	7	7	7	7	7	7
85										
86										
87										
88	001-024	74C244	▷1	U56,67,78	3	3	3	3	3	3
89										
90										
91										
92	002-081	MC14490FP		U12	1	1	1	1	1	1
93	589-823	74LS138		U68,79	2	2	2	2	2	2
94	589-974	LM317LZ		U50	1	1	1	1	1	1
95										
96										
97										
98										
99	590-444	CD4082	▷1	U40	1	1	1	1	1	1
100	590-450	CD4053		U2,35,37,38, 47,48,60	7	7	7	7	7	7
101	590-477	CD4025		U74	1	1	1	1	1	1
102										
103	590-480	CD4015	▷1	U9	1	1	1	1	1	1
104	590-486	MC14538		U1,3,14,16, 30,42	6	6	6	6	6	6
105	590-488	CD4502	▷1	U17	1	1	1	1	1	1
106										
107	590-489	CD4030		U31	1	1	1	1	1	1
108	590-492	CD4075		U75	1	1	1	1	1	1
109	590-493	CD4043	▷1	U73	1	1	1	1	1	1
110										
111	590-502	TL072		U69,70	2	2	2	2	2	2
112	590-505	CD4008	▷1	U51	1	1	1	1	1	1
113	590-506	CD4011		U65	1	1	1	1	1	1
114										
115	590-508	CD4072		U44	1	1	1	1	1	1
116	590-509	CD4073		U4	1	1	1	1	1	1
117	590-528	CD4001		U7,18	2	2	2	2	2	2
118	002-879	CD4044	▷1	U6	1	1	1	1	1	1
119	590-542	LM311		U71,72	2	2	2	2	2	2
120	590-546	CD4013	▷1	U13,15,21,23,24 26,32,36,41,43	10	10	10	10	10	10
121	590-556	CD4081		U8,29,64,76	4	4	4	4	4	4
122										
123	590-571	CD4029		U25,33,34,45, 46,52,53	7	7	7	7	7	7
124	590-592	CD4069		U11,77	2	2	2	2	2	2
125	590-593	CD4071		U5,20,22,63	4	4	4	4	4	4
126										
127	590-773	INTEGRATED CIRCUIT, 74C374	▷1	U55,66	2	2	2	2	2	2

LM-1467140

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
128	590-847	INTEGRATED CIRCUIT, 74LS245	U57	1	1		1	1	1
129									
130									
131									
132	587-958	INTEGRATED CIRCUIT, CD4002 [1]	U28	1	1	1		1	1
133									
134									
135									
136									
137	041-789	RESISTOR, C.C., 6.8M OHMS, .25W, 5%	R25	1	1	1	1	1	1
138									
139									
140									
141									
142									
143									
144									
145									
146									
147	066-830	RESISTOR, C.F., 10K OHMS, .25W, 5%	R27,32,[illegible],35,36, 38,39,97,101-104, 106,107,166-168, 173-177			-	22	22	22
148									
149	066-812	RESISTOR, C.F., 100 OHMS, .25W, 5%	R169	1	1	1	1	1	1
150	066-652	RESISTOR, C.F., 470K OHMS, .25W, 5%	R116-120	5	5	5	5	5	5
151	066-665	1K	R41,42,124, 126	4	4	4	4	4	4
152	066-673	1M	R73,74,99, 108,123,141	6	6	6	6	6	6
153	066-711	7.5K	R44,47	2	2	2	2	2	2
154	066-717	47K	R1	1	1	1	1	1	1
155	066-830	10K	R27,32,33,35,36, 38,39,40,97, 101-104,106,107,166-168,173-177	23	23	23	-	-	-
156									
157	066-668	4.7K	R105,159-165	8	8	8	8	8	8
158	066-842	5.1K	R23,152,158	3	3	3	3	3	3
159	066-847	33K	R146,157	2	2	2	2	2	2
160	066-849	100K	R15,26,49	3	3	3	3	3	3
161	066-850	240K	R29,31	2	2	2	2	2	2
162	066-853	200K	R24,28,170,171	4	4	4	4	4	4
163	066-928	2.4K	R40,43,45			-	3	3	3
164	066-859	240	R94	1	1	1	1	1	1
165	066-860	39K	R100	1	1	1	1	1	-
166	066-866	27K	R20,59,69,87, 121,127,143	7	7	7	7	7	7
167	066-873	20K	R110-115,172	7	7	7	7	7	7
168	066-852	62K	R109	1	1	1	1	1	1
169	066-928	2.4K	R43,45	2	2	2	-	-	-
170	066-940	2.2M	R30	1	1	1	-	-	-
171	066-858	4.7M	R30			-	1	1	1
172	066-974	RESISTOR, C.F., 150K OHMS, .25W, 5%	R34	1	1	1	1	1	1

LM-1467140

AMPEX Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467140 SHEET 5	REV T

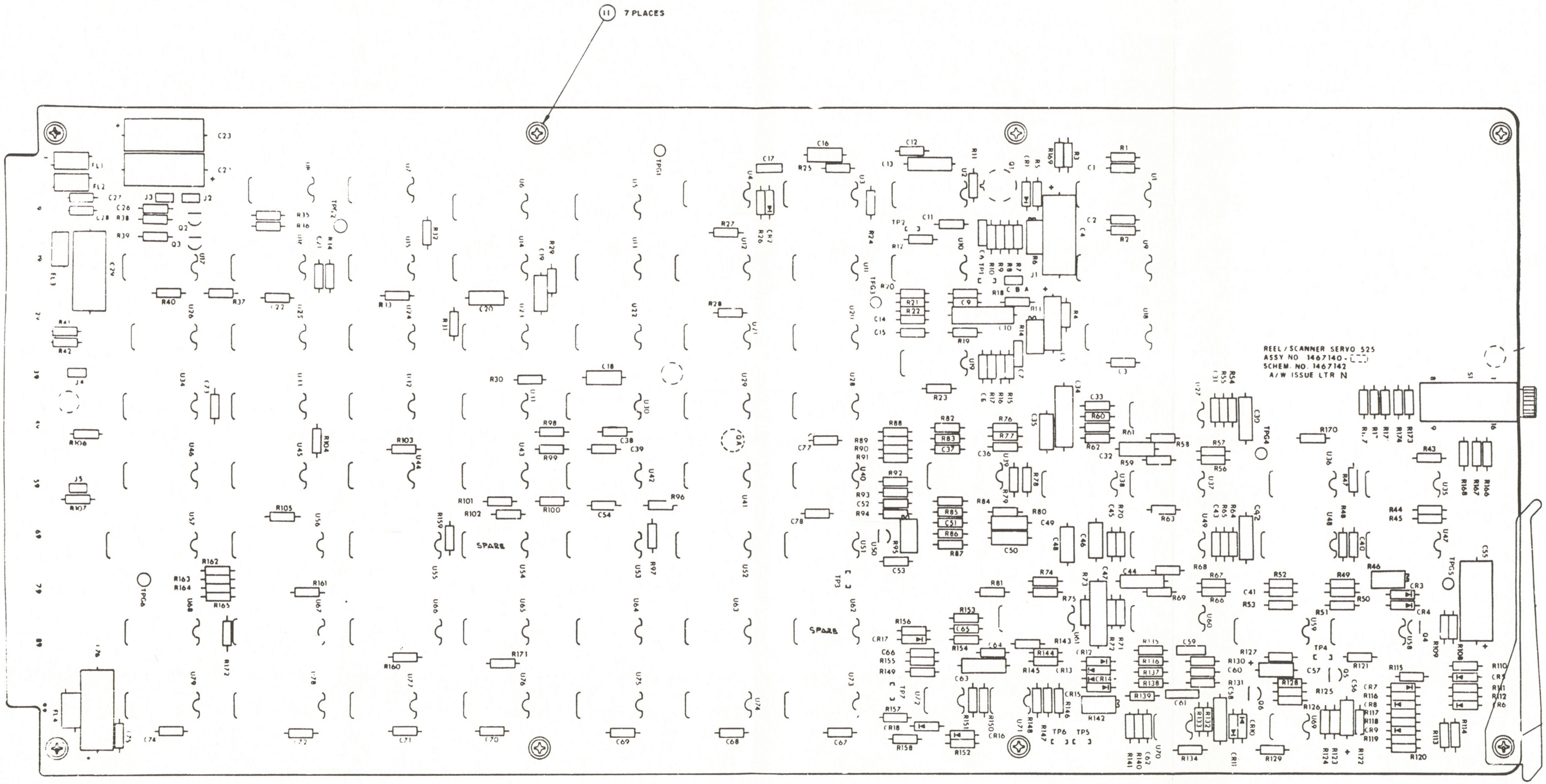
ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
173	076-053	RESISTOR, C.F., 390K OHMS, .25W, 5%	R56,66,96	3	3	3	3	3	3
174	076-015	RESISTOR, C.F., 3.3M OHMS, .25W, 5%	R63,156	2	2	2	2	2	2
175									
176									
177									
176	042-332	RESISTOR, M.F., 24.9K OHMS, .25W, 1%	R12	1	1	1	1	1	1
179									
180									
181									
182	062-601	RESISTOR, M.F., 100K OHMS, .25W, 1%	R22,48,50,51,53,57,58,60,62,57,63,70,71,75,81,125,128,129,133,136,137,140,145,150	24	24	24	24	24	24
183									
184									
185	062-624	RESISTOR, M.F., 1K OHMS, .25W, 1%	R3	1		1	1	1	1
186	062-643	2K	R4	1		1	1	1	1
187	062-796	1M	R2,18,21,76,83,148,151	7	7	7	7	7	7
188	062-800	21.5K	R91	1		1	1	1	1
189									
190	062-884	301	R7	1		1	1	1	1
191	062-922	909	R8	1		1	1	1	1
192	062-983	10K	R10,16,17,61,72,84,132,147	8	8	8	8	8	8
193									
194	062-986	12.1K	R86	1	1	1	1	1	1
195									
196									
197	066-003	23.7K	R100						1
198	066-001	22.6K	R77	1	1	1	1	1	1
199	062-995	16.5K	R85	1	1	1	-	-	-
200	066-004	24.3K	R11,80	2	2	2	2	2	2
201	066-061	13K	R85			-	1	1	1
202	066-525	34.8K	R155	1	1	1	1	1	1
203	066-017	75K	R78,79	2	2	2	2	2	2
204	066-020	121K	R9	1	1	1	1	1	1
205									
206	066-022	200K	R13,130,131,139,153	5	5	5	5	5	5
207	066-028	332K	R93	1	1	1	1	1	1
208	066-034	475K	R52,54,64	3	3	3	3	3	3
209	066-183	60.4K	R98	.		-	1	1	1
210	066-468	150K	R98	1	1	1	-	-	-
211	066-656	30.1K	R134	1	1	1	1	1	1
212	066-733	49.9K	R82,122	2	2	2	2	2	2
213	066-806	43.2K	R90	1	1	1	1	1	1
214	066-861	45.3K	R5	1	1	1	1	1	1
215	066-009	RESISTOR, M.F., 33.2K OHMS, .25W, 1%	R37	1	1	1	1	1	1
216									
217									

LM-1467140

AMPEX Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467140 SHEET 6	REV T

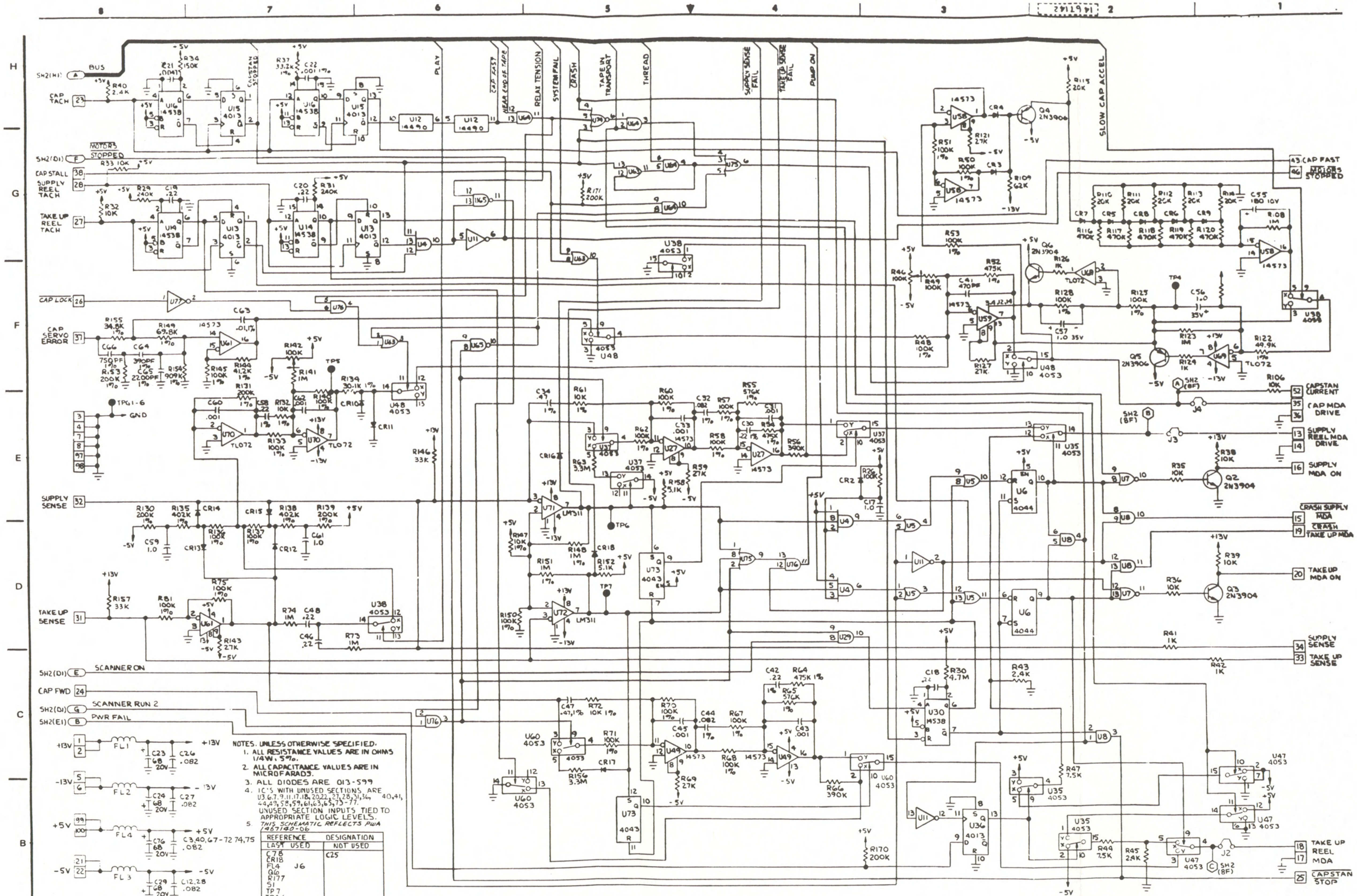
ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
218	066-927	RESISTOR, M.F., 909K OHMS, .25W, 1%	R154	1		1	1	1	1
219	076-154	174K	R88	1		1	1	1	1
220	076-345	41.2K	R144	1		1	1	1	1
221	076-346	69.8K	R149	1		1	1	1	1
222	076-348	86.6K	R89	1		1	1	1	1
223	076-358	165K	R92	1		1	1	1	1
224									
225									
226	076-370	402K	R135,138	2	2	2	2	2	2
227	076-373	464K	R19	1		1	1	1	1
228	076-377	RESISTOR, M.F., 576K OHMS, .25W, 1%	R55,65	2	2	2	2	2	2
229									
230									
231									
232									
233	058-566	RESISTOR, VARIABLE, 10K OHMS, .5W, 10%	R6	1		1	1	1	1
234	058-368	RESISTOR, VARIABLE, 100K OHMS, .5W, 10%	R14,46,142	3	3	3	3	3	3
235	058-539	RESISTOR, VARIABLE, 1K OHMS, .5W, 10%	R95	1		1	1	1	1
236									
237									
238									
239									
240	014-631	TRANSISTOR, PNP DUAL	Q1	1		1	1	1	1
241	014-652	TRANSISTOR, 2N3906	Q4,5	2	2	2	2	2	2
242	014-653	TRANSISTOR, 2N3904	Q2,3,6	3	3	3	3	3	3
243									
244									
245									
246	140-437	CONNECTOR, SIGNAL CIRCUIT, PLUG, RECT, 2 SOC	REF: J1-6	5	5	5	5	6	6
247	187-055	TERMINAL, WIREWRAP	REF: J1-6	10	10	10	10	12	12
248	119-894	SWITCH, DIP 16 PIN	S1	1	1	1	1	1	1
249									
250	187-259	TERMINAL, PC, TEST POINT	TP1-7	7	7	7	7	7	7
251									
252									
253	477-516	SCREW, SET, CUP POINT, HEX SOC DR., 4-40 X .188LG.	REF: S1	1	1	1	1	1	1
254									
255									
256									
257									
258		NOTES:							
259		1 STATIC SENSITIVE DEVICE							
260		SPECIAL HANDLING REQUIRED							
261		PER AMPEX STD HE1-1.							
262									

LM-1467140



COMPONENT SIDE

Assembly No. 1467140-06T.
Reel and Scanner Servo PWA, A14, NTSC, PAL-M

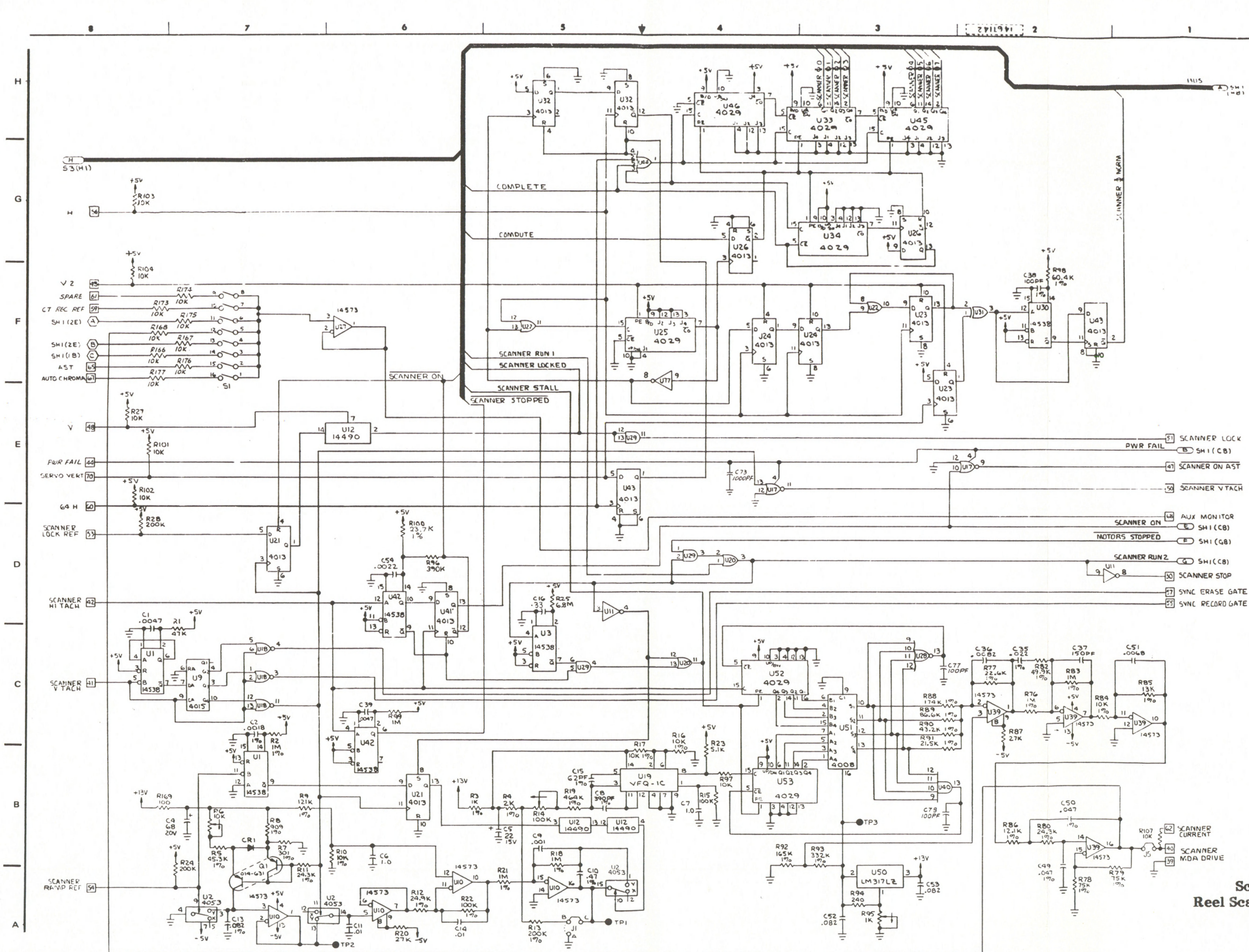


I. C. LIST

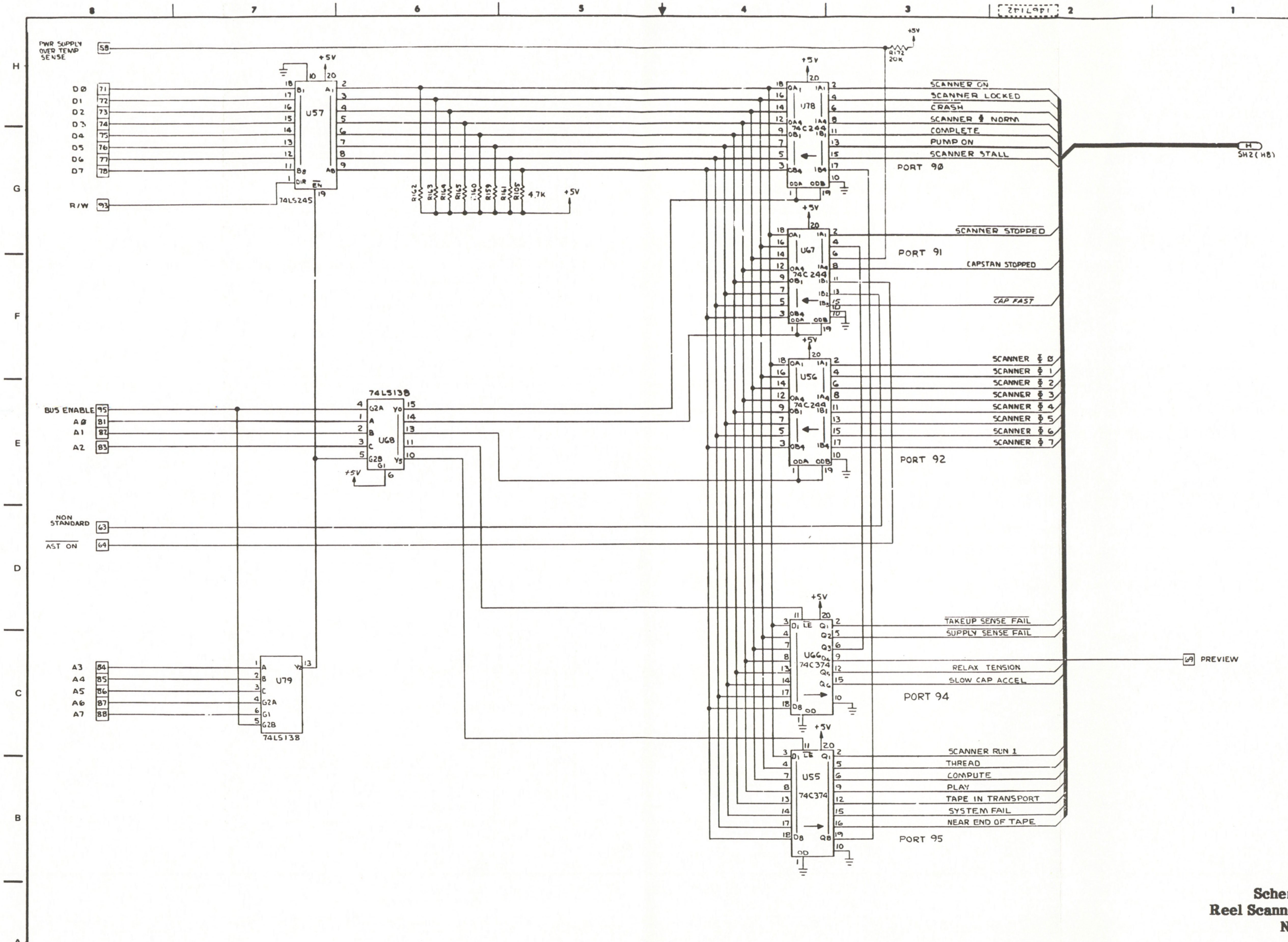
REF DES	U10,27,39,49,58,59,61	U71,72	U50	U28	U40	U19		U44		U55,66	U31	U17		U9	U74	U68,79	U57	U56,67,78
AMPEX P/N	000-036	590-542	589-974	587-958	590-444	000-031		590-508		590-773	590-489	590-488		590-480	590-477	589-823	590-847	001-024
VENDOR P/N	MC14573	LM311	LM317LZ	CD4002	CD4082	VFQ1C		CD4072		74C374	CD4030	CD4502		CD4015	CD4025	74LS138	74LS245	74C244
VCC	+5V (4)	+13V (8)	+13V (3)	+5V (14)	+5V (14)			+5V (14)		+5V(20)	+5V (14)	+5V (16)		+5V (16)	+5V (14)	+5V (16)	+5V (20)	+5V (20)
VSS	-5V (13)	-13V (4)		GND (7)	GND (7)			GND (7)		GND (10)	GND (7)	GND (8)		GND (8)	GND (7)	GND (8)	GND (10)	GND. (10)

REF DES	U13,15,21,23,24,26,32,36,41,43	U65	U2,35,37,38,47,48,60	U12	U1,3,14,16,30,42	U6	U5,20,22,63	U75	U7,18	U8,29,64,76	U11,77	U4	U69,70	U51	U25,33,34,45,46,52,53	U73
AMPEX P/N	590-546	590-506	590-450	002-081	590-486	002-879	590-593	590-492	590-528	590-556	590-592	590-509	590-502	590-505	590-571	590-493
VENDOR P/N	CD4013	CD4011	CD4053	MC14490	MC14538	CD4044	CD4071	CD4075	CD4001	CD4081	CD4069	CD4073	TL072	CD4008	CD4029	CD4043
VCC	+5V (14)	+5V (14)	+5V(16)	+5V (16)	+5V (16)	+5V (16)	+5V (14)	+5V (14)	+5V (14)	+5V (14)	+5V (14)	+5V (14)	+13V (8)	+5V (16)	+5V (16)	+5V(16)
VSS	GND (7)	GND (7)	GND (8&6) -5V (7)	GND (8)	GND (8)	GND (8)	GND (7)	GND (7)	GND (7)	GND (7)	GND (7)	GND (7)	-13V (4)	GND (8)	GND(8)	GND (8)

Schematic No. 1467142P.
Reel Scanner Servo PWA, A14,
NTSC, PAL-M (Early)
(Sheet 1 of 3)



Schematic No. 1467142P.
Reel Scanner Servo PWA, A14,
NTSC, PAL-M (Early)
(Sheet 2 of 3)



Schematic No. 1467142P.
Reel Scanner Servo PWA, A14,
NTSC, PAL-M (Early)
(Sheet 3 of 3)

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
1									
2									
3	1467145	SCHEMATIC		K	L	M	N	P	R
4	1467149-01	KNOB REF: S1		1	1	1	1	1	1
5	1400004-01	EJECTOR, PWB		1	1	1	1	1	1
6	1467008-AV	LABEL		1	1	1	1	1	1
7	1467009-01	SHIELD		1	1	1	1	1	1
8	250-155	BUMPER, PAD, SYNTHETIC RUBBER		3	3	3	3	3	3
9	283-105	SPACER, PLAIN, .140 ID X .250 OD X .125 LG		1	1	1	1	1	1
10	471-063	SCREW, MACH, PAN HD, XREC DR, 4-40 X .438 LG		1	1	1	1	1	1
11	474-500	SCREW, MACH, PAN HD, XREC DR, 4-40 X .312 LG		7	7	7	7	7	7
12	502-002	WASHER, LOCK, HELICAL SPRING, #4		1	1	1	1	1	1
13	506-011	WASHER, BOWED		1	1	1	1	1	1
14									
15									
16	064-314	CAPACITOR, CER. MONO, 1uF, 50V, 20%	C6,7,17,59,61	5	5	5	5	5	5
17									
18	064-670	150pF, 100V, 5%	C37	1	1	1	1	1	1
19									
20	064-684	100pF, 50V, 1%	C38	1	1	1	1	1	1
21	064-695	75pF, 50V, 1%	C15	1	1	1	1	1	1
22	064-699	390pF, 50V, 1%	C8,64	2	2	2	2	2	2
23									
24	064-704	1000pF, 50V, 5%	C9,31,33,43, 45,60,62,73	8	8	8	8	8	8
25	064-705	2200pF, 100V, 5%	C54	1	1	1	1	1	1
26									
27									
28	064-754	.01uF, 50V, 5%	C11,14	2	2	2	2	2	2
29	064-747	.032uF, 50V, 5%	C3,12,26-28,40, 52,53,67-72,74,75	16	16	16	16	16	16
30									
31	064-762	100pF, 100V, 5%	C77,78	2	2	2	2	2	2
32	064-764	470pF, 50V, 5%	C41	1	1	1	1	1	1
33	064-767	4700pF, 50V, 5%	C1,39	2	2	2	2	2	2
34	064-681	750pF, 50V, 1%	C66	1	1	1	1	1	1
35									
36	064-794	8200pF, 50V, 5%	C36	1	1	1	1	1	1
37	064-795	CAPACITOR, CER. MONO, 6800pF, 50V, 5%	C51	1	1	1	1	1	1

LM-1467143

AMPEX Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467143						
ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05	-06
38	064-799	CAPACITOR, CER. MONO, .22uF, 50V, 5%	C13,19,20, 45,46	6	6	6	6	6	5
39	064-819	1000pF, 50V, 1%	C22	1	1	1	1	1	1
40	064-824	1800pF, 100V, 1%	C2	1	1	1	1	1	1
41	064-825	2200pF, 50V, 1%	C65	1	1	1	1	1	1
42	064-828	CAPACITOR, CER. MONO, 4700pF, 50V, 1%	C21	1	1	1	1	1	1
43	064-797	CAPACITOR, CER. MONO, .33uF, 50V, 20%	C16						1
44									
45									
46									
47									
48									
49									
50									
51	055-638	CAPACITOR, POLY, .01uF, 100V, 1%	C63	1	1	1	1		1
52	055-808	CAPACITOR, POLY, .22uF, 100V, 1%	C30,42,58	3	3	3	3	3	3
53	055-809	.047uF,	C49,50	2	2	2	2	2	2
54	055-858	.022uF,	C35	1	1	1	1		1
55	055-906	.082uF,	C13,32,44	3	3	3	3	3	3
56									
57	055-911	CAPACITOR, POLY, .47uF, 100V, 1%	C10,34,47	3	3	3	3	3	3
58									
59									
60									
61	037-164	CAPACITOR, TANT, 1.0uF, 35V, 10%	C56,57	2	2	2	2	2	2
62	037-750	CAPACITOR, TANT, 68uF, 20V, 20%	C4,23,24,29,76	5	5	5	5	5	5
63	037-754	CAPACITOR, TANT, 180uF, 10V, 10%	C55	1	1	1	1		1
64									
65									
66	037-991	CAPACITOR, TANT, 22uF, 15V, 10%	C5	1	1	1	1		1
67									
68									
69									
70									
71	013-599	DIODE, SWITCHING, CD458	CR1-18	18	18	18	18	[illegible]	13
72									
73									
74	051-770	FERRITE-CHOKE	FL1-4	4	4	4	4	4	4
75									
76									
77									
78									
79									
80									
81									
82									

LM-1467143

AMPEX Ampex Corporation REDWOOD CITY CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467143 SHEET 3	REV U

ITEM NO	PART NUMBER	DESCRIPTION		REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05	-06
83	000-031	INTEGRATED CIRCUIT, VFQ-1C		U19	1	1	1	1	1	1
84	000-036		MC14573	U10,27,39, 49,58,59,61	7	7	7	7	7	7
85										
86										
87										
88	001-024		74C244	U56,67,78	3	3	3	3	3	3
89										
90										
91										
92	002-081		MC14490	U12	1	1	1	1	1	1
93	589-823		74LS138	U68,79	2	2	2	2	2	2
94	589-974		LM317LZ	U50	1	1	1	1	1	1
95										
96										
97										
98										
99	590-444		CD4082 [1]	U40	1	1	1		1	1
100	590-450		CD4053	U2,35,37, 38,47,48,60	7	7	7	7	7	7
101	590-477		CD4025	U74	1		1		1	1
102										
103	590-480		CD4015 [1]	U9	1		1		1	1
104	590-486		MC14538	U1,3,14,16, 30,42	6	6	6	6	6	6
105	590-488		CD4502 [1]	U17	1		1		1	1
106										
107	590-489		CD4030	U31	1		1	1	1	1
108	590-492		CD4075	U75	1		1	1	1	1
109	590-493		CD4043 [1]	U73	1		1		1	1
110										
111	590-502		TL072	U69,70	2	2	2	2	2	2
112	590-505		CD4008 [1]	U51	1		1	1	1	1
113	590-506		CD4011	U65	1		1	1	1	1
114										
115	590-508		CD4072	U44	1		1	1	1	1
116	590-509		CD4073	U4	1		1	1	1	1
117	590-528		CD4001	U7,18	2	2	2	2	2	2
118	002-879		CD4044 [1]	U6	1		1	1	1	1
119	590-542		LM311	U71,72	2	2	2	2	2	2
120	590-546		CD4013 [1]	U13,15,21, 23,24,26,32,36,41,43	10	10	10	10	10	10
121	590-556		CD4081	U8,29,64,76	4	4	4	4	4	4
122										
123	590-571		CD4029	U25,33,34, 45,46,52,53	7	7	7	7	7	7
124	590-592		CD4069	U11,77	2	2	2	2	2	2
125	590-593		CD4071	U5,20,22,63	4	4	4	4	4	4
126										
127	590-773	INTEGRATED CIRCUIT, 74C374 [1]		U55,66	2	2	2	2	2	2

LM-1467143

AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467143 SHEET 4	REV U

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
128	590-847	INTEGRATED CIRCUIT, 74LS245	U57	1				1	1
129									
130									
131									
132	587-958	INTEGRATED CIRCUIT, CD4002 [1]	U28	1				1	1
133									
134									
135									
136									
137	041-789	RESISTOR, C.C., 6.8M OHMS, .25W, 5%	R25	1				1	1
138									
139									
140									
141									
142									
143									
144									
145									
146									
147	066-830	RESISTOR, C.F., 10K OHMS, .25W, 5%	R27,32,33,35,36, 38,39,97,101-104, 106,107,166-168, 173-177			-	22	22	22
148									
149	066-812	RESISTOR, C.F., 100 OHMS, .25W, 5%	R169	1	1	1		1	1
150	066-652	RESISTOR, C.F., 470K OHMS, .25W, 5%	R116-120	5	5	5	5	5	5
151	066-665	1K	R41,42,124, 126	4	4	4	4	4	4
152	066-673	1M	R73,74,99, 108,123,141	6	6	6	6	6	6
153	066-711	7.5K	R44,47	2	2	2	2	2	2
154	066-717	47K	R1	1	1	1	1	1	1
155	066-830	10K	R27,32,33, 35,36,38,39, 40,97,101-104,106, 107,166-168,173,177	23	23	23	-	-	-
156									
157	066-668	4.7K	R105,159-165	8	8	8	8	8	8
158	066-842	5.1K	R23,152,158	3	3	3	3	3	3
159	066-873	20K	R110-115,172	7	7	7	7	7	7
160	066-849	100K	R15,26,49	3	3	3	3	3	3
161	066-850	240K	R29,31	2	2	2	2	2	2
162	066-853	200K	R24,28,170, 171	4	4	4	4	4	4
163	066-847	33K	R146,157	2	2	2	2	2	2
164	066-859	240	R94	1	1	1	1	1	1
165	066-860	39K	R100	1	1	1	1	1	-
166	066-866	27K	R20,59,69, 87,121,127,143	7	7	7	7	7	7
167	066-928	2.4K	R40,43,45			-	3	3	3
168	066-852	62K	R109	1	1	1		1	1
169	066-928	2.4K	R43,45	2	2	2	-	-	-
170	066-940	2.2M	R30	1	1	1	-	-	-
171	066-858	4.7M	R30			-	1	1	1
172	066-974	RESISTOR, C.F., 150K OHMS, .25W, 5%	R34	1		1		1	1

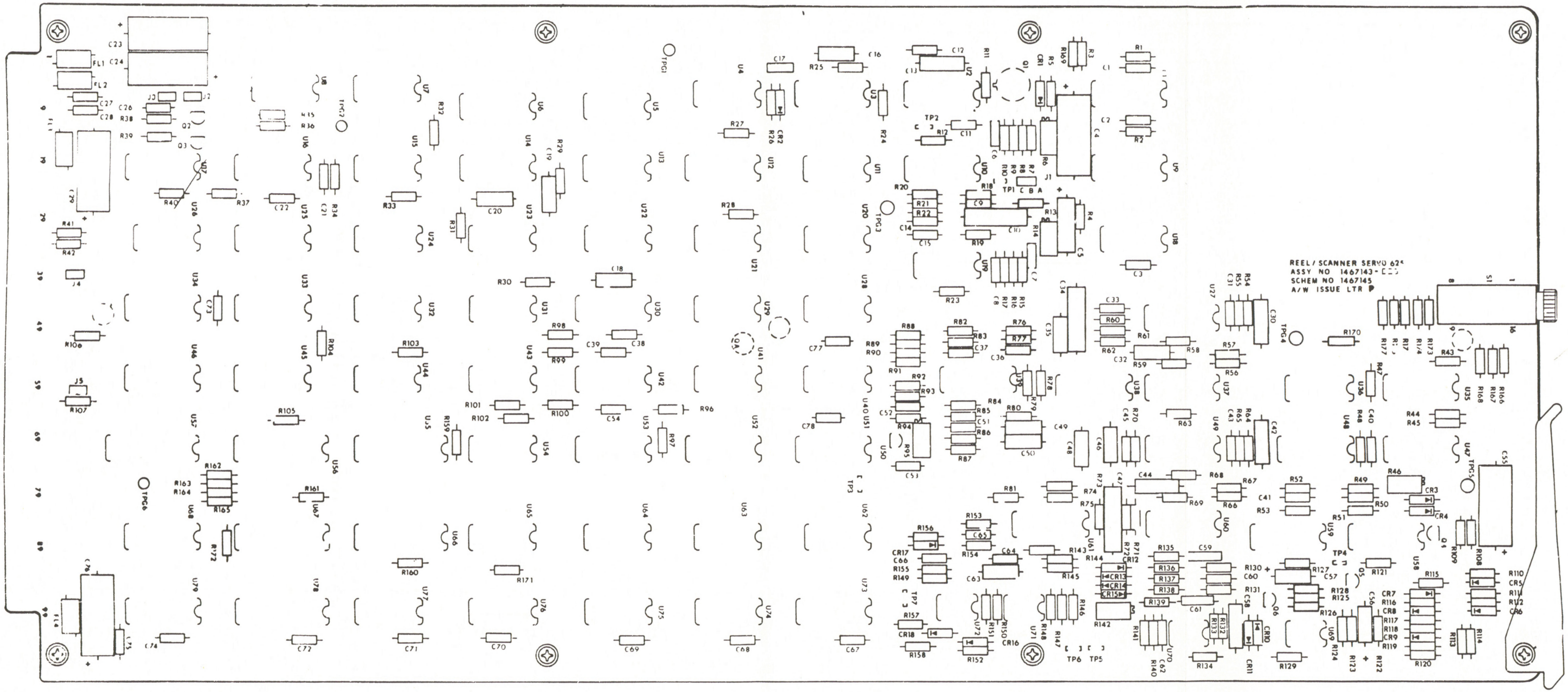
LM-1467143

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
173	076-053	RESISTOR, C.F., 390K OHMS, .25W, 5%	R56,66,96	3	3	3	3	3	3
174	076-015	RESISTOR, C.F., 3.3M OHMS, .25W, 5%	R63,156	2	2	2	2	2	2
175									
176									
177									
178	042-332	RESISTOR, M.F., 24.9K OHMS, .25W, 1%	R12	1	1		1	1	1
179									
180									
181									
182	062-601	RESISTOR, M.F., 100K OHMS, .25W, 1%	R22,48,50,51,53,57,58,	24	24	24	24	24	24
183		60,62,67,68,70,71,75,81,133,136,137,140,145,150	125,128,129,						
184									
185	062-624	RESISTOR, M.F., 1K OHMS, .25W, 1%	R3	1	1		1	1	1
186	062-643	2K	R4	1	1		1	1	1
187	062-796	1M	R2,18,21,76,83,148,151	7	7	7	7	7	7
188	062-800	21.5K	R91	1	1		1	1	1
189									
190	062-884	301	R7	1	1		1	1	1
191	062-922	909	R8	1	1		1	1	1
192	062-983	10K	R10,16,17,61,72,84,132,147	8	8	8	8	8	8
193									
194	062-986	12.1K	R86	1	1		1	1	1
195									
196									
197									
198	066-001	22.6K	R77	1	1		1	1	1
199	062-995	16.5K	R85	1	1		-	-	-
200	066-004	24.3K	R11,80	2	2	2	2	2	2
201	066-061	13K	R85			-	1	1	1
202	066-525	34.8K	R155	1	1	1	1	1	1
203	066-017	75K	R78,79	2	2	2	2	2	2
204	066-020	121K	R9	1	1	1	1	1	1
205	066-181	28.7K	R100						1
206	066-022	200K	R13,130,131,139,153	5	5	5	5	5	5
207	066-028	332K	R93	1	1	1	1	1	1
208	066-034	475K	R52,54,64	3	3	3	3	3	3
209	066-183	60.4K	R98			-	1	1	1
210	066-468	150K	R98	1	1	1	-	-	-
211	066-656	30.1K	R134	1	1	1	1	1	1
212	066-733	49.9K	R82,122	2	2	2	2	2	2
213	066-806	43.2K	R90	1	1	1	1	1	1
214	066-861	45.3K	R5	1	1	1	1	1	1
215	066-009	RESISTOR, M.F., 33.2K OHMS, .25W, 1%	R37	1	1	1	1	1	1
216									
217									

LM-1467143

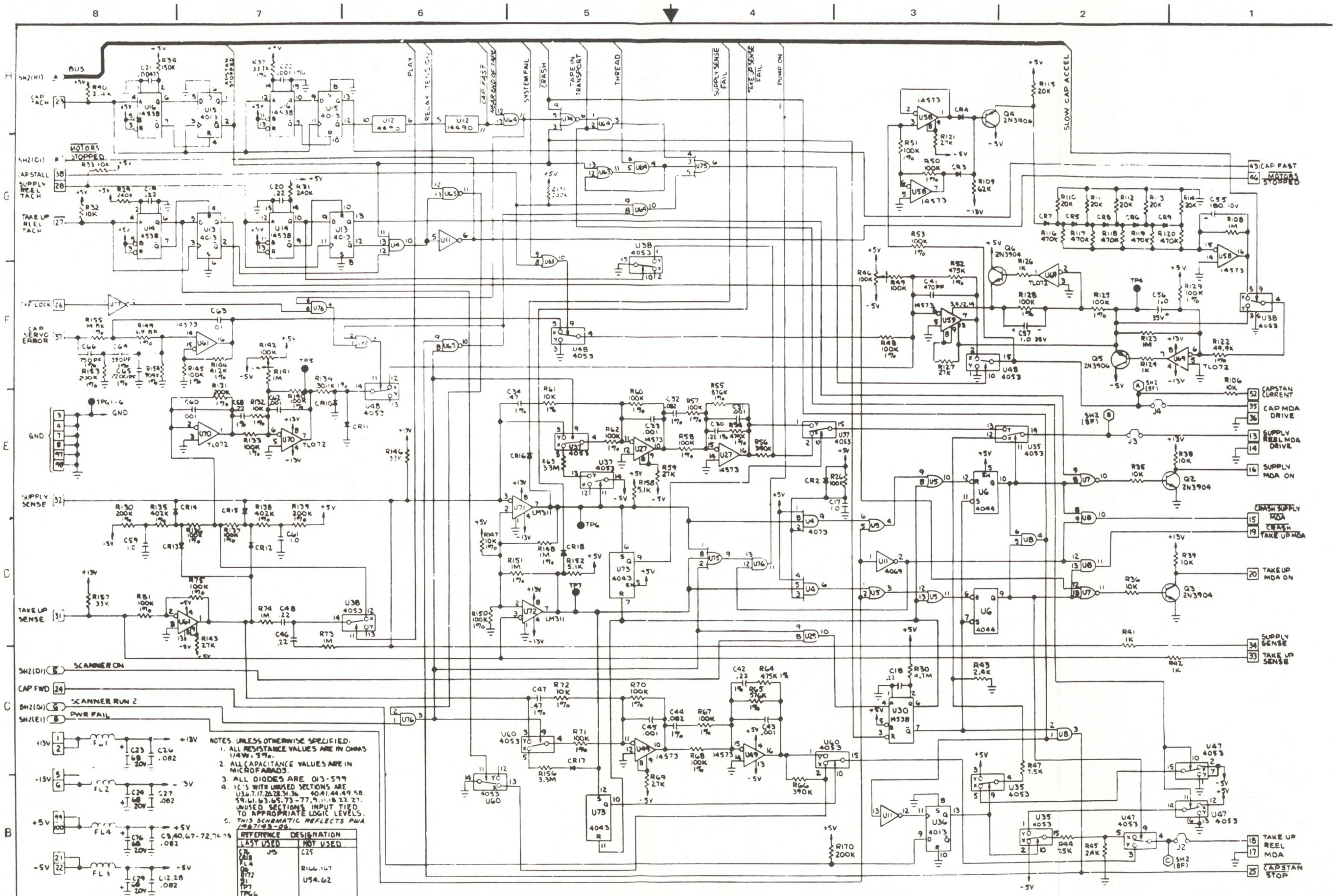
ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
218	066-927	RESISTOR, M.F., 909K OHMS, .25W, 1%	R154	1		1		1	1
219	076-194	174K	R88	1		1		1	1
220	076-345	41.2K	R144	1		1		1	1
221	076-346	69.8K	R149	1		1		1	1
222	076-348	86.6K	R89	1		1		1	1
223	076-358	165K	R92	1		1		1	1
224									
225									
226	076-370	402K	R135,138	2	2	2	2	2	2
227	076-373	464K	R19	1	1	1		1	1
228	076-377	RESISTOR, M.F., 57[illegible] OHMS, .25W, 1%	R55,65	2	2	2	2	2	2
229									
230									
231									
232									
233	058-566	RESISTOR, VARIABLE, 10K OHMS, .5W, 10%	R6		1	1		1	1
234	058-868	RESISTOR, VARIABLE, 100K OHMS, .5W, 10%	R14,46,142	3	3	3	3	3	3
235	058-539	RESISTOR, VARIABLE, 1K OHMS, .5W, 10%	R95	1	1	1		1	1
236									
237									
238									
239									
240	014-631	TRANSISTOR, PNP DUAL	Q1		1	1		1	1
241	014-652	TRANSISTOR, 2N3906	Q4,5	2	2	2	2	2	2
242	014-653	TRANSISTOR, 2N3904	Q2,3,6	3	3	3	3	3	3
243									
244									
245									
246	140-437	CONNECTOR, SIGNAL CIRCUIT, PLUG, RECT, 2 SOC	REF: J1-5	5	5	5	5	5	5
247	187-055	TERMINAL, WIREWRAP	REF: J1-5	10	10	10	10	10	10
248									
249	119-894	SWITCH, DIP, 16 PIN	S1	1	1	1	1	1	1
250	187-259	TERMINAL, PC, TEST POINT	TP1-7	7	7	7	7	7	7
251									
252									
253	477-516	SCREW, SET, CUP POINT, HEX SOC DR., 4-40 X .188LG. REF: S1		1	1	1	1	1	1
254									
255									
256									
257									
258									
259		1 STATIC SNESITIVE DEVICE							
260		SPECIAL HANDLING REQUIRED							
261		PER AMPEX STD HE1-1.							
262									

LM-1467143



COMPONENT SIDE

Assembly No. 1467143-06U.
Reel Scanner Servo PWA, A14, PAL/SECAM

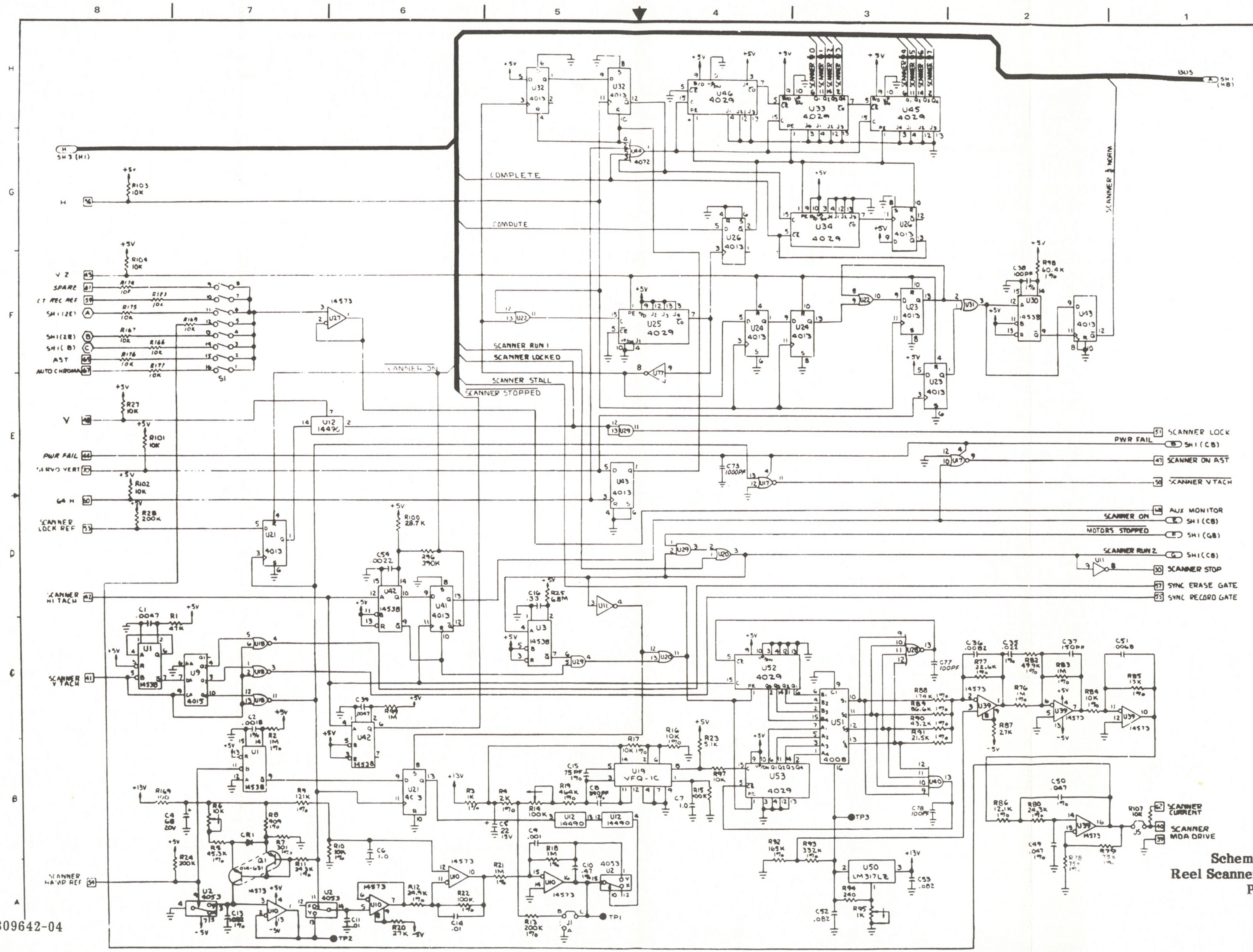


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REF DES	U[illegible]	U71, 72	U50	U28	U40	U19		U44		U55,66	U31	U17		U9	U74	U68,79	U57	U56,67,78
AMPEX P/N	000-036	590-542	589-974	587-958	590-444	000-031		590-508		590-773	590-489	590-488		590-480	590-477	589 823	590-847	001-02A
VENDOR P/N	MC14573	LM311	LM317LZ	CD4002	CD4082	VFQIC		CD4072		74C374	CD4030	CD4502		CD4015	CD4025	74LS138	74LS245	74C244
VCC	+5V (4)	+13V (8)	+13V (3)	+5V (14)	+5V (14)			+5V (14)		+5V (20)	+5V (14)	+5V (16)		+5V (16)	+5V (14)	+5V (16)	+5V (20)	+5V (20)
VSS	-5V (13)	-13V (4)		GND (7)	GND (7)			GND (7)		GND (10)	GND (7)	GND (8)		GND (8)	GND (7)	GND (8)	GND (10)	GND (10)

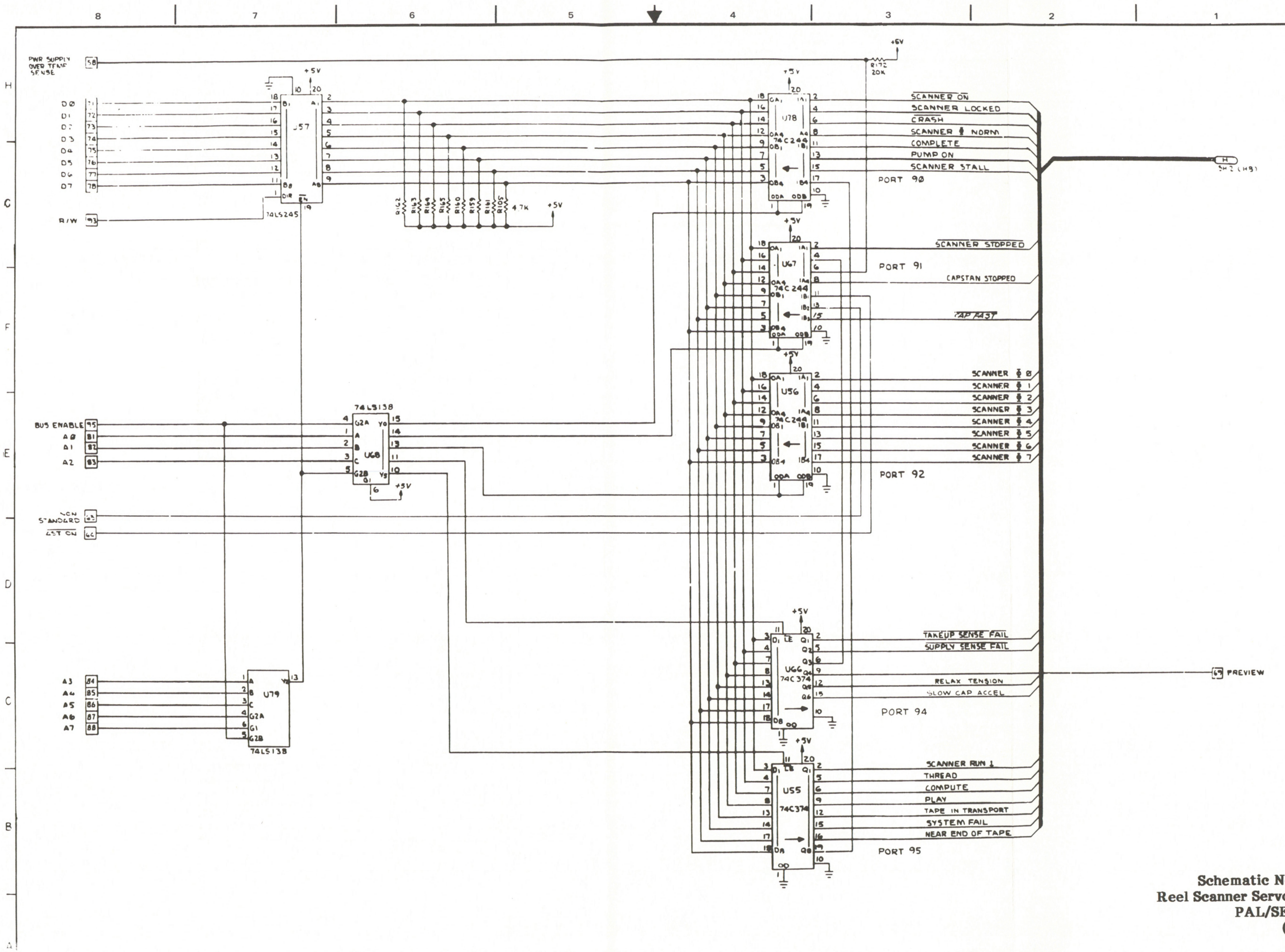
REF DES	U11,15,21,23,24, 26,38,40,41,43	U65	U2,35,37,38, 47,48,60	U12	U1,3,14,16,30, 44	U6	U5,20,22,63	U75	U7,18	U8,29,64,76	U11,77	U4	U69,70	U51	U25,33,34,45,46,52,53	U73
AMPEX P/N	590-546	590-506	590-450	002-081	590-486	003-879	590-593	590-492	590-528	590-556	590-592	590-509	590-502	590-505	590-571	590 493
VENDOR P/N	CD4013	CD4011	CD4053	MC14490	MC14538	CD 4044	CD4071	CD 4075	CD4001	CD4081	CD4069	CD4093	TL072	CD4008	CD4029	CD4043
VCC	+5V (14)	+5V (14)	+5V (16)	+5V (16)	+5V (16)	+5V (16)	+5V (14)	+5V (14)	+5V (14)	+5V (14)	+5V (14)	+5V (14)	+13V (8)	+5V (16)	+5V (16)	+5V (16)
VSS	GND (7)	GND (7)	GND (8)-5V (7)	GND (8)	GND (8)	GND (8)	GND (7)	GND (7)	GND (7)	GND (7)	GND (7)	GND (7)	-13V (4)	GND (8)	GND (8)	GND (8)

Schematic No. 1467145R.
Reel Scanner Servo PWA, A14,
PAL/SECAM (Early)
(Sheet 1 of 3)



Ampex 1809642-04

Schematic No. 1467145R.
Reel Scanner Servo PWA, A14,
PAL/SECAM (Early)
(Sheet 2 of 3)



Schematic No. 1467145R.
Reel Scanner Servo PWA, A14,
PAL/SECAM (Early)
(Sheet 3 of 3)

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -11	-12	-03	-04	-05	-06	-07	-08	-09	-10
1	1467151	PRINTED WIRING BOARD		-11	-12	-03	-04	-05	-06	-07	-08	-09	-10
2													
3	1467152	SCHEMATIC		[illegible]	U	J	K	L	M	N	P	R	S
4													
5	1400004-01	EJECTOR, PWB		1	1	1				1	1	1	1
6	1467008-AW	LABEL		1	1	1				1	1	1	1
7	1467009-01	SHIELD		1	1	1	1	1		1	1	1	1
8	250-155	BUMPER PAD, SYNTHETIC RUBBER		3	3	3	3	3	3	3	3	3	3
9	283-105	SPACER, PLAIN, .140 ID X .250 OD X .125 LG		1	1	1				1	1	1	1
10	471-063	SCREW, MACH, PAN HD, XREC DR, 4-40 X .438 LG		1	1	1				1	1	1	1
11	474-500	SCREW, MACH, PAN HD, XREC DR, 4-40 X .312 LG		7	7	7	7	7	7	7	7	7	7
12	502-002	WASHER, LOCK HELICAL SPRING, #4		1	1	1	1			1	1	1	1
13	506-011	WASHER, BOWED		1	1	1				1	1	1	1
14													
15													
16													
17	064-694	CAPACITOR, CER., MONO, 200pF, 100V, 5%	C56	1	1				-	1	1	1	1
18	064-315	CAPACITOR, CER. MONO, 1.5uF, 50V, 20%	C70	1	1	1	1	1		1	1	1	1
19	064-316	2.2uF, 50V, 20%	C4,49,51,71, 87	5	5	5	5	5	5	5	5	5	5
20	064-747	.082uF, 50V, 5%	C1,7-12,15,17,25, 30,33,35,44,45,47,	44	44	44	44	44	44	44	44	44	44
21		62,64,65,67,68,72,73,74,79,84,89,91, 93,94,96-106,108,109,116											
22	064-684	100pF, 50V, 1%	C40,41,55, 63,77	-	-	5	5	-	-	-	-	-	-
23	064-684	100pF, 50V, 1%	C40,41,52,55, 63,77	6	6		-	6	6	6	6	6	6
24	064-737	3pF, 50V, ±.5pF	C3	1	1	1	1		1	1	1	1	1
25	064-696	180pF, 50V, 1%	C19,61	2	2	2	2	2	2	2	2	2	2
26	064-697	300pF, 50V, 1%	C76	1	1	1	1			1	1	1	1
27	064-705	2200pF, 100V, 5%	C32,83	-	-	2	2	2	-	-	-	-	-
28	064-828	4700pF, 50V, 1%	C86	1	1	1	1	1		1	1	1	1
29	064-705	2200pF, 100V, 5%	C32,83,117	3	3			-	4	4	4	3	3
30	064-747	.082uF, 50V, 5%	C1,7-12,15, 17,25,30,33,	-	-	-	-	-	-	-	-	-	-
31		35,44,45,47,62,64,65,67,68, 72,73,74,79,84,89,91,93,94,											
32		96-106,108,109											
33	064-777	560pF, 50V, 1%	C58,111	2	2	2	2	2	2	2	2	2	2
34	064-746	.047uF, 50V, 5%	C59,112	2	2	2	2	2	2	2	2	2	2
35	064-788	36pF, 50V, ±.5pF	C14	1	1	1	1			1	1	1	1
36	064-768	.0033uF, 50V, 5%	C90	1	1	1	1			1	1	1	1
37	064-754	CAPACITOR, CER. MONO, .01uF, 50V, 5%	C46,60,80,85	4	4	4	4	4	4	4	4	4	4

LM-1467150

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467150 SHEET 2	REV W

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-12	-03	-04	-05	-06	-07	-08	-09	-10
38	064-756	CAPACITOR, CER. MONO, .022uF, 50V, 5%	C21	1	1	1	1	1	1	1	1	1	1
39	064-758	.033uF, 50V, 5%	C28	-	-	1	1	1	1	-	-	-	-
40	064-651	220pF, 100V, 5%	C34	1	1	1	1	1	1	1	1	1	1
41	064-795	6800pF, 50V, 5%	C56	-	-	1	1	1	1	-	-	-	-
42	064-765	1500pF, 50V, 5%	C57,75	2	2	2	2	2	2	2	2	2	2
43	064-775	20pF, 50V, ±.5pF	C6,27	2	2	2	2	2	2	2	2	2	2
44	064-785	47pF, 50V, ±.5pF	C13,24,26,82	4	4	4	4	4	4	4	4	4	4
45	064-766	1200pF, 50V, 5%	C54,110	-	-	2	2	2	-	-	-	-	-
46	064-799	.22uF, 50V, 5%	C36,42,92	3	3	3	3	3	3	3	3	3	3
47	064-819	1000pF, 50V, 1%	C66	1	1	1	1	1	1	1	1	1	1
48	064-836	1000pF, 50V, 5%	C5,29,38,39,66,69,78,95	-	-	8	8	8	-	-	-	-	-
49	064-709	120pF, 100V, 5%	C53	1	1	1	1	1	1	1	1	1	1
50	064-678	CAPACITOR, CER. MONO, 50pF, 50V, 1%	C52	-	-	1	1	-	-	-	-	-	-
51	064-836	CAPACITOR, CER. MONO, 1000pF, 50V, 5%	C5,29,38,39,69,78,95	7	7			-	7	7	7	7	7
52	064-758	CAPACITOR, CER., MONO, .033uF, 50V, 5%	C28,119	2	2				-	2	2	2	2
53	064-766	CAPACITOR, CER., MONO, 1200pF, 50V, 5%	C54	1	1				-	1	1	1	1
54	055-906	CAPACITOR, POLYCARBONATE, .082uF, 100V, 1%	C20	1	1	1	1	1	1	1	1	1	1
55	056-670	.15uF, 100V,	C37,113,114	3	3	3	3	3	3	3	3	3	3
56	055-911	.47uF, 100V,	C88	1	1	1	1	1	1	1	1	1	1
57													
58													
59													
60	069-121	CAPACITOR, POLYCARBONATE, .033uF, 100V, 1%	C18	1	1	1	1	1	1	1	1	1	1
61													
62													
63													
64													
65	037-109	CAPACITOR, TANT, 10uF, 20V, 10%	C2,31,48,50	4	4	4	4	4	4	4	4	4	4
66	037-726	CAPACITOR, TANT, 3.3uF, 15V, 10%	C43	1	1	1	1	1	1	1	1	1	1
67	037-750	CAPACITOR, TANT, 68uF, 20V, 10%	C16,22,23,107	4	4	4	4	4	4	4	4	4	4
68													
69													
70													
71													
72													
73													
74													
75	038-248	CAPACITOR, VARIABLE, 15-60pF, 100V	C81,115	-	-	2	2	2	2	-	-	-	
76	038-248	CAPACITOR, VARIABLE, 15-60pF, 100V	C81	1	1				-	1	1	1	1
77													
78	013-450	DIODE, ZENER, 10V	VR1-5	5	5	5	5	5	5	5	5	5	5
79	013-599	DIODE, SWITCHING, CD458	CR1-10	10	10	10	10	10	10	10	10	10	10
80													
81													
82	051-770	FERRITE-CHOKE	FL1-4	4	4	4	4	4	4	4	4	4	4

LM-1467150

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-11	-12	-03	-04	-05	-06	-07	-08	-09	-10
83	540-075	INDUCTOR, FIXED, 22mH, 5%	L1	-	-	-	-	-	-	-	-	-	-
84													
85	540-017	INDUCTOR, FIXED, 68uH, 5%	L2	1	1	1	1	1	1	1	1	1	1
86													
87													
88													
89													
90	000-027	INTEGRATED CIRCUIT, MC14574	U10	1	1	1	1	1	1	1	1	1	1
91	000-028	MC14575	U84	1	1	1	1	1	1	1	1	1	1
92													
93	000-035	74LS624	U71	1	1	1	1	1	1	1	1	1	1
94	000-036	MC14573	U11,27,38,45,58	5	5	5	5	5	5	5	5	5	5
95													
96													
97													
98	001-024	74C244	U95,106	2	2	2	2	2	2	2	2	2	2
99													
100													
101													
102	001-974	74LS83	U23,35	2	2	2	2	2	2	2	2	2	2
103	590-047	74LS245	U70	1	1	1	1	1	1	1	1	1	1
104													
105													
106	002-081	MC14490	U100	1	1	1	1	1	1	1	1	1	1
107	001-959	CD40103BE	U49,51,62,63,75	5	5	5	5	5	5	5	5	5	5
108	589-602	CD4063BE	U45	1	1	1	1	1	1	1	1	1	1
109													
110	589-623	74LS138	U96,107	2	2	2	2	2	2	2	2	2	2
111	589-974	LM317LZ	U9	1	1	1	1	1	1	1	1	1	1
112													
113	590-489	CD4030BE	U30,47,57	3	3	3	3	3	3	3	3	3	3
114	590-493	CD4043BE	U6	1	1	1	1	1	1	1	1	1	1
115	001-995	NE5532	U1	1		1	1	1	1	1	1	1	1
116	590-450	CD4053BE	U3,16,21,24,43,72,85,92,97,99,108	11	11	11	11	11	11	11	11	11	11
117													
118													
119	590-486	MC14538	U28,31,39,53,64,87,90	7	7	7	7	7	7	7	7	7	7
120													
121	590-468	CD4502BE	U67	1	1	1	1	1	1	1	1	1	1
122	590-506	CD4011BF	U88	1	1	1	1	1	1	1	1	1	1
123	590-509	CD4073BE	U102	1	1	1	1	1	1	1	1	1	1
124													
125	590-502	TL072	U2,14,15,25,37,98	6	6	6	6	6	6	6	6	6	6
126	590-528	CD4081BE	U42,74,101	3	3	3	3	3	3	3	3	3	3
127	002-879	INTEGRATED CIRCUIT, CD4044	U50	1	1	1	1	1	1	1	1	1	1

LM-1467150

AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467150 SHEET 4	REV W

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-11	-12	-03	-04	-05	-06	-07	-08	-09	-10
128	590-542	INTEGRATED CIRCUIT, LM311	U4,5	2	2	2	2	2	2	2	2	2	2
129	590-546	CD4013BE	U8,26,29,32, 44,66,77,79, 86,94,104,105	12	12	12	12	12	12	12	12	12	12
130													
131													
132	590-556	CD4081BE	U7,17,33,78, 89	5	5	5	5	5	5	5	5	5	5
133	590-480	CD4015BE	U93	1	1	1	1	1	1	1	1	1	1
134	590-570	CD4520BC	U19,68	2	2	2	2	2	2	2	2	2	2
135	590-571	CD4029BE	U12,13,22, 34,52,54,61	7	7	7	7	7	7	7	7	7	7
136	590-592	CD4069UF	U41,76,81, 103	4	4	4	4	4	4	4	4	4	4
137													
138	590-593	CD4071BP	U18,20,46, 56,73,91	6	6	6	6	6	6	6	6	6	6
139	590-729	CD4052BE	U55,80	2	2	2	2	2	2	2	2	2	2
140	002-122	DAC-10FX	U36	1	1	1	1	1	1	1	1	1	1
141	590-724	CD4051BE	U59	1	1	1	1	1	1	1	1	1	1
142	590-773	74C374	U69,82,83	3	3	3	3	3	3	3	3	3	3
143	590-829	CD4098BE	U40,65	2	2	2	2	2	2	2	2	2	2
144	590-295	INTEGRATED CIRCUIT, MC14504	U60	1	1	1	1	1	1	1	1	1	1
145													
146													
147													
148													
149	020-915	RELAY, GENERAL PURPOSE, DPDT	K1	1	1	1	1	1	1	1	1	1	1
150													
151													
152													
153	066-652	RESISTOR, C.F., 470K OHMS, .25W, 5%	R82,83,116	3	3				-	3	3	3	3
154	066-652	RESISTOR, C.F., 470K OHMS, .25W, 5%	R82,83	-	-	2	2	2	2	-	-	-	-
155	066-665	1K	R178	-	-	1	1	1	-	-	-	-	-
156	066-672	620K	R162	1	1	1	1	1			1	1	1
157	066-665	1K	R178,186,187	3	3	-	-	3	3	3	3	3	3
158	066-673	1M	R75,28,42, 87,160	-	-	5	5	5	5	-	-	-	-
159	066-712	22K	R14,16,35	3	3	3	3	3	3	3	3	3	3
160	066-717	47K	R100,140	2	2	2	2	2	2	2	2	2	2
161	066-812	100	R175	1	1	1	1	1	1	1	1	1	1
162	066-816	390	R98	1	1	1	1	1		1	1	1	1
163	066-845	24K	R188	1	1				-	1	1	1	1
164	066-830	10K	R26,65,80, 84,93,94, 105,134,135, 137,139	-	-	11	11	11	11	-	-	-	-
165													
166	066-842	5.1K	R29,61,159	3	3	3	3	3	3	3	3	3	3
167	066-847	33K	R27,64	2	2	2	2	2	2	2	2	2	2
168	066-849	100K	R52,62,86,101, 106,111,112, 114,148,151, 172	-	-	11	11	-	-	-	-	-	-
169													
170	066-846	30K	R185	1	1	1	1	1	1	1	1	1	1
171	066-850	240K	R81	1	1	1	1	1	1	1	1	1	1
172	066-851	RESISTOR, C.F., 510K OHMS, .25W, 5%	R149,173	2	2	2	2	2	2	2	2	2	2

LM-1467150

AMPEX	Ampex Corporation REDWOOD CITY CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467150 SHEET 5	W	REV

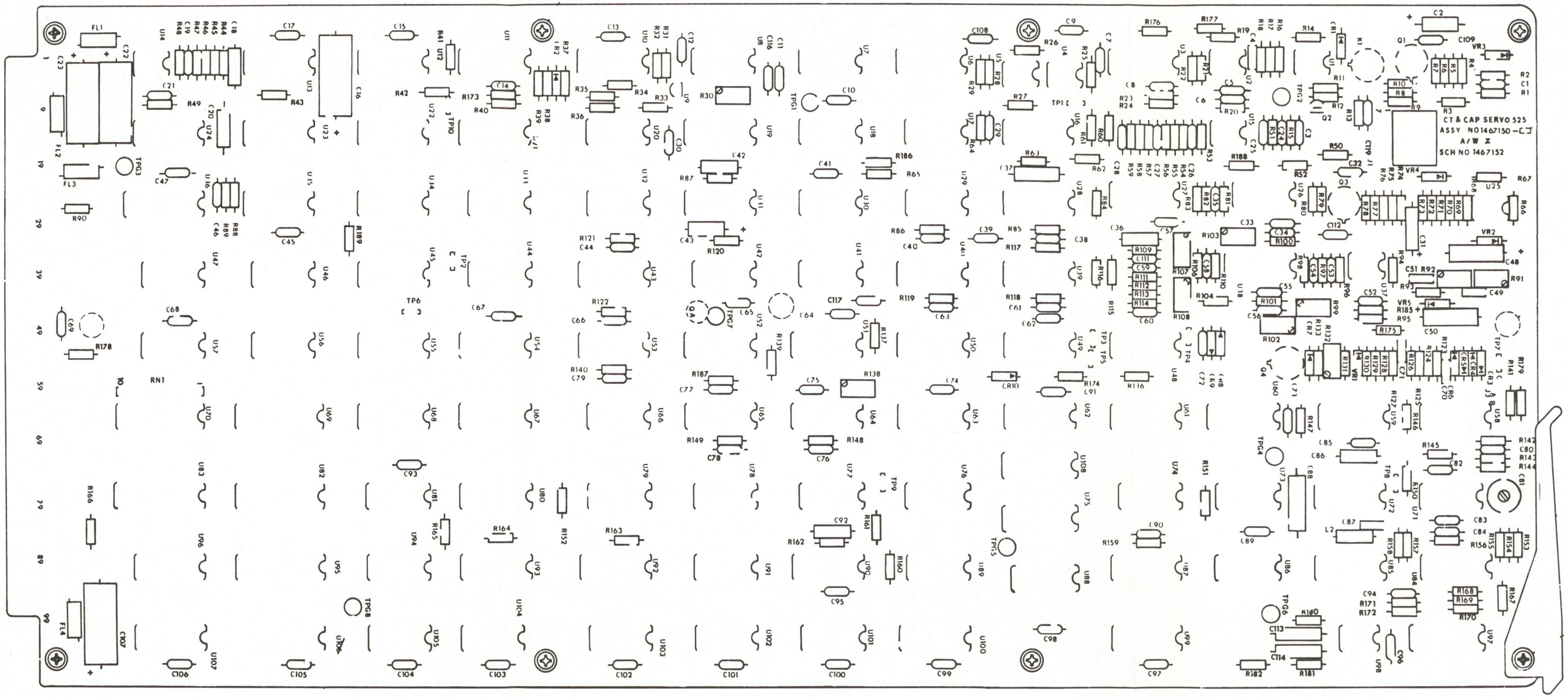
ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-11	-12	-03	-04	-05	-06	-07	-08	-09	-10
173	066-853	RESISTOR, C.F., 200K OHMS, .25W, 5%	R55,90,95,117,121,152,164,165,166	-	-	9	9	[illegible]		-	-	-	-
174	066-856	15K	R163	1	1	1	1	1	1	1	1	1	1
175	066-[illegible]	240	R33	1	1	1	1	1		1	1	1	1
176	066-853	200K	R85,90,117,121,152,164,165,166	8	8		8	8	8	8	8	8	8
177	066-866	22K	R41,60,104,136,146,156	6	6	6	6	6	6	6	6	6	6
178	066-974	150K	R115,116,174	-	-	3	3	3	3	-	-	-	-
179	066-849	100K	R52,62,86,95,101,106,111,112,114,148,151,172	12	12			12	12	12	12	12	12
180	066-974	150K	R116,174	2	2					2	2	2	2
181	066-940	2.2[illegible]	R36,38	2	2	2	2	2	2	2	2	2	2
182	066-673	1M	R25,28,42,87,115,160	6	6					6	6	6	6
183	066-864	13K	R40	1	1	1	1	1	1	1	1	1	1
184	066-830	10K	R26,65,80,84,93,94,137,139	8	8					8	8	8	8
185	066-832	18K	R97	1	1	1	1	1	1	1	1	1	1
186	066-913	220K	R189	1	1							1	1
187	076-010	130K	R118	-	-	1	1	1	1		-		-
188	076-012	330K	R63	1	1	1	1	1	1	1	1	1	1
189	076-051	300K	R122	1	1	1	1	1	1	1	1	1	1
190	076-062	2[illegible]	R120	1	1	1	1	1	1	1	1	1	1
191	076-015	3.3M	R96	1	1	1		1	1	1	1	1	1
192													
193	076-[illegible]	RESISTOR, C.F., 2.4M OHMS, .25W, 5%	R110	1	1	1	1	1	1	1	1	1	1
194													
195													
196													
197													
198													
199	041-[illegible]	RESISTOR, FIXED, COMP, 6.2M OHMS, .25W, 5%	R161	1	1	1	1	1	1	1	1	1	1
200													
201													
202													
203	041-[illegible]	RESISTOR, FIXED, COMP, 10M OHMS, .25W, 5%	R109,113	2	2	2	2	2	2	2	2	2	2
204													
205													
206	062-559	RESISTOR, M.F., 21K OHMS, .25W, 1%	R31	1	1		1	1	1	1	1	1	1
207	062-600	RESISTOR, M.F., 11K OHMS, .25W, 1%	R182	1	1	1	1	1	1	1	1	1	1
208	062-601	RESISTOR, M.F., 100K OHMS, .25W, 1%	R15,18,20,21,23,45,47,51,53,54,55,56,57,153,15[illegible],158,168,169,170	19	19	18	18	18	18	18	18	19	19
209													
210													
211													
212													
213	062-[illegible]	RESISTOR, M.F., 3.01K, .25W, 1%	R44	1	1							1	1
214													
215													
216													
217													

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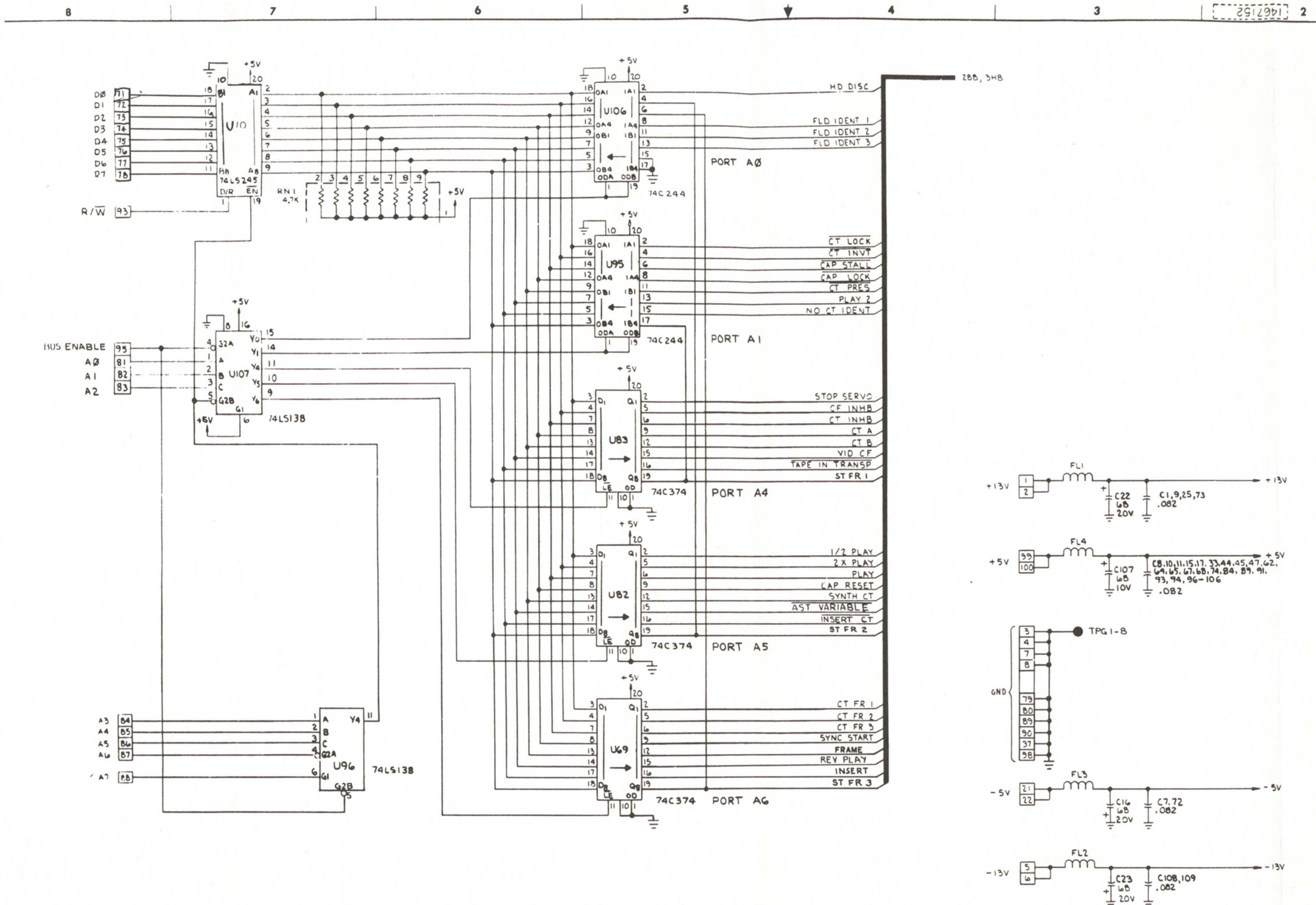
ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07	-08	-09	-10
218	062-693	RESISTOR, M.F., 20K OHMS, .25W, 1%	R2,3,5,10,58 59,66-69,72, 73,78,79,119, 176,177		-	17	17	17	17	-	-	-	-
219													
220	062-693	20K	R2,3,58,59,66-69,72, 73,119,176,177	13	13				-	13	13	13	13
221	062-797	?.6K	R181	1	1	1	1	1	1	1	1	1	1
222	062-796	1M	R46,150,179	3	3	3	3	3	3	3	3	3	3
223	062-798	56.2K	R45	-	-	1	1	1	1	1	1	-	-
224	062-867	165	R8,10,78,79	4	4				-	4	4	4	4
225	062-847	100	R6,7,76,77	4	4	4	4	4	4	4	4	4	4
226	062-887	332	R11	1	1	1	1	1	1	1	1	1	1
227	062-?89	357	R131	1	1	1	1	1	1	1	1	1	1
228													
229	062-922	909	R133	1	1	1	1	1	1	1	1	1	1
230	062-961	3.92K	R32,37,39	3	3	3	3	3	3	3	3	3	3
231	062-968	4.99K	R43,49	2	2	2	2	2	2	2	2	2	2
232													
233													
234	062-963	10K	R9,70,88,89	4	4	4	4	4	4	4	4	4	4
235													
236	062-966	4.75K	R13	1	1	1	1	1	1	1	1	1	1
237	066-806	43.2K	R16/,171	2	2	2	2	2	2	2	2	2	2
238	062-966	4.75K	R183,184	-	-	-	-	-	-	-	-	-	-
239	066-011	39.2K	R154,155	-	2	2	2	2	2	2	2	2	2
240													
241	066-015	51.1K	R147	1	1	1	1	1	1	1	1	1	1
242													
243	076-383	787K	R130	1	1	1	1	1	1	1	1	1	1
244	066-023	237K	R143	1	1	1	1	1	1	1	1	1	1
245	066-035	499K	R141	1	1	1	1	1	1	1	1	1	1
246	066-159	1.78K	R34	1	1	1	1	1	1	1	1	1	1
247	066-803	182K	R129	1	1	1	1	1	1	1	1	1	1
248	066-655	68.1K	R142	1	1	1	1	1	1	1	1	1	1
249	066-656	30.1K	R123	1	1	1	1	1	1	1	1	1	1
250													
251	062-624	1K	R1,4,71,74	4	4	5	5	5	5	5	[illegible]	4	4
252	066-733	49.9K	R12,17,19	3	3	3	3	3	3	3	3	3	3
253	066-008	28K	45,75	2	2	2	2	2	2	2	2	2	2
254	066-875	127K	R180	1	1	1	1	1	1	1	1	1	1
255	066-763	221K	R124,145	2	2	2	2	2	2	2	2	2	2
256													
257	066-926	267K	R144	1	1	1	1	1	1	1	1	1	1
258													
259	066-183	60.4K	R126	1	1	1	1	1	1	1	1	1	1
260													
261	076-097	RESISTOR, M.F., 187K OHMS, .25W, 1%	R22	1	1	1	1	1	1	1	1	1	1
262													

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-11	-12	-13	-01	-15	-16	-17	-03	-09	-10
263													
264	076-378	RESISTOR, M.F., 604K OHMS, .25W, 1%	R24,50	2	2	2			2		2	2	2
265													
266	062-986	RESISTOR, M.F., 12.1K OHMS, .25W, 1%	R125	1	1						1	1	1
267	076-126	88.7K	R127	1	1						1	1	1
268	076-381	750K	R48	1	1						1	1	1
269	066-031	RESISTOR, M.F., 383K OHMS, .25W, 1%	R128	1	1						1	1	1
270													
271	039-241	RESISTOR, PACK, 4.7K OHMS	RN1	1	1						1	1	1
272													
273													
274													
275													
276													
277	058-575	RESISTOR, VARIABLE, 100K OHMS, .5W, 10%	R91,92,102, 103,138	5	5	5	5	5	5	5	5	5	5
278	058-601	1K	R30	1	1						1	1	1
279	058-565	10K	R99	1	1						1	1	1
280													
281	058-527	20K	R107,108	2	2	2	2				2	2	2
282	058-573	RESISTOR, VARIABLE, 100 OHMS, .5W, 10%	R132	1	1						1	1	1
283													
284													
285													
286	014-631	TRANSISTOR, CD515	Q4	1	1						1	1	1
287													
288													
289													
290	579-018	VN10KM	Q2	1	1	1	1				1	1	1
291													
292													
293													
294	580-944	TRANSISTOR, LM394	Q1,3	2	2	2	2	2	2	2	2	2	2
295													
296	140-437	CONNECTOR SIGNAL, CIRCUIT PLUG, RECT.	REF: J3	1	1	1	1				1	1	1
297	135-423	HEADER ASSEMBLY, 12 POS	REF: J1	1	1	1					1	1	1
298													
299	187-055	TERMINAL, WIREWRAP	REF: J3	3	3	3	3			3	3	3	3
300	187-253	TERMINAL, PC, TEST POINT	TP1-10	10	10	10	10	10	10	10	10	10	10
301	173-620	TERMINAL, STUD TURRET	TPG1-8	8	8								
302													
303													
304		NOTES:											
305		[1] STATIC SENSITIVE, SPECIAL HANDLING REQUIRED PER AMPEX STD HE1-1.											
306													
307													

LM-1467150



Assembly No. 1467150-12U.
Control Track and Capstan Servo PWA, A15, NTSC, PAL-M



NOTES ; UNLESS OTHERWISE SPECIFIED.

1. ALL RESISTANCE VALUES ARE IN OHMS 1/4 W, 5%.
2. ALL CAPACITANCE VALUES ARE IN MICROFARADS.
3. ALL DIODES ARE P/N 013-599.
4. SCHEMATIC REFLECTS PWA 1467150-12
5. I.C.'S WITH UNUSED SECTIONS ARE U6,7,11,24,27, 40,42,48,50,55, 68,73,74,76,80,84,87,88,102,108. UNUSED INPUTS TIED TO APPROPRIATE LOGIC LEVELS.

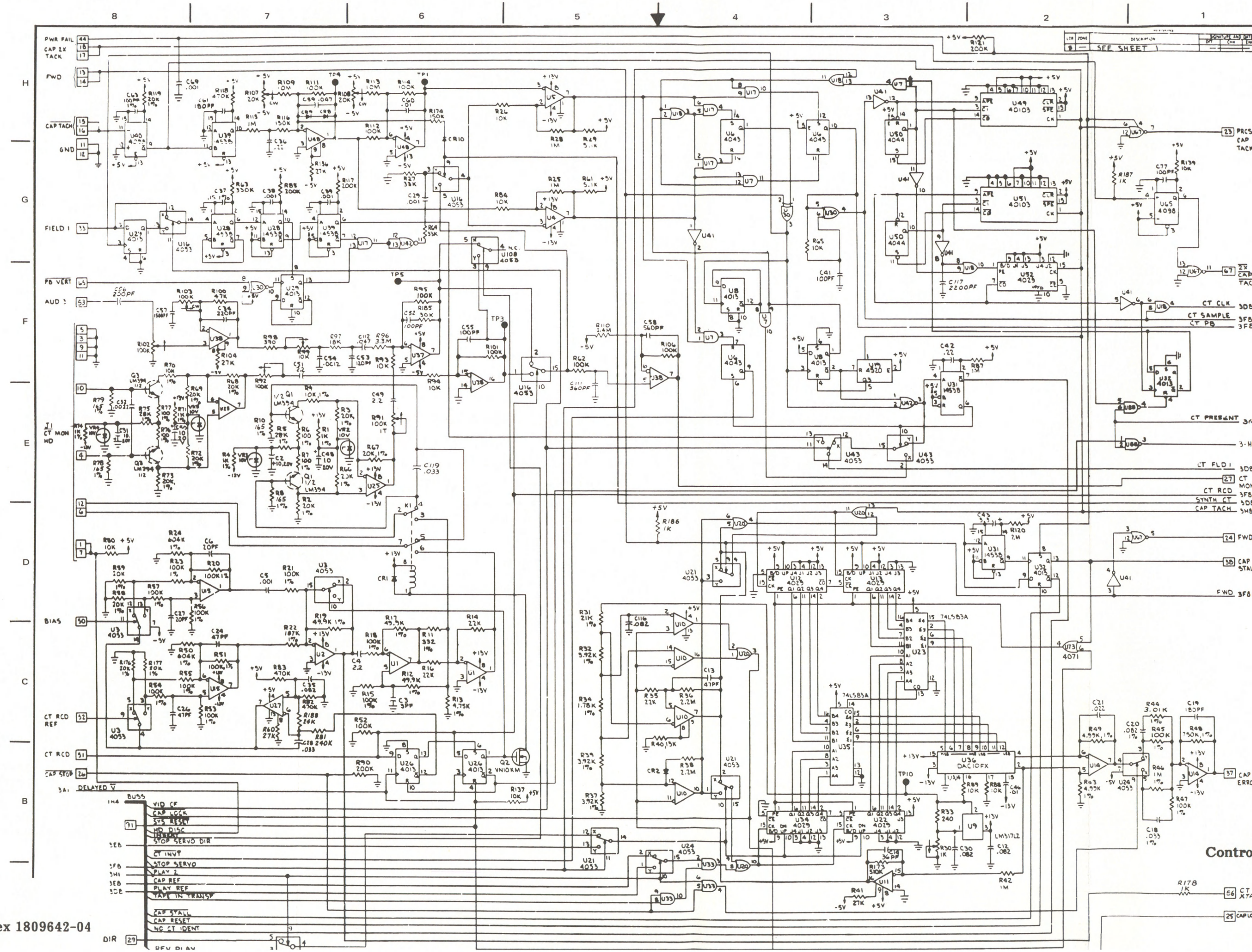
I.C. LIST

REF DES	U18,20,46,56,73,91	U59	U60
AMPEX	590-593	590-724	590-295
VENDOR	CD4071	CD 4051	MC14504
VOLTAGE	+5V (14)	+13V (16)	+5V(1)+13V(16)
VSS/GND	(7)	(8)	(8 & 13)

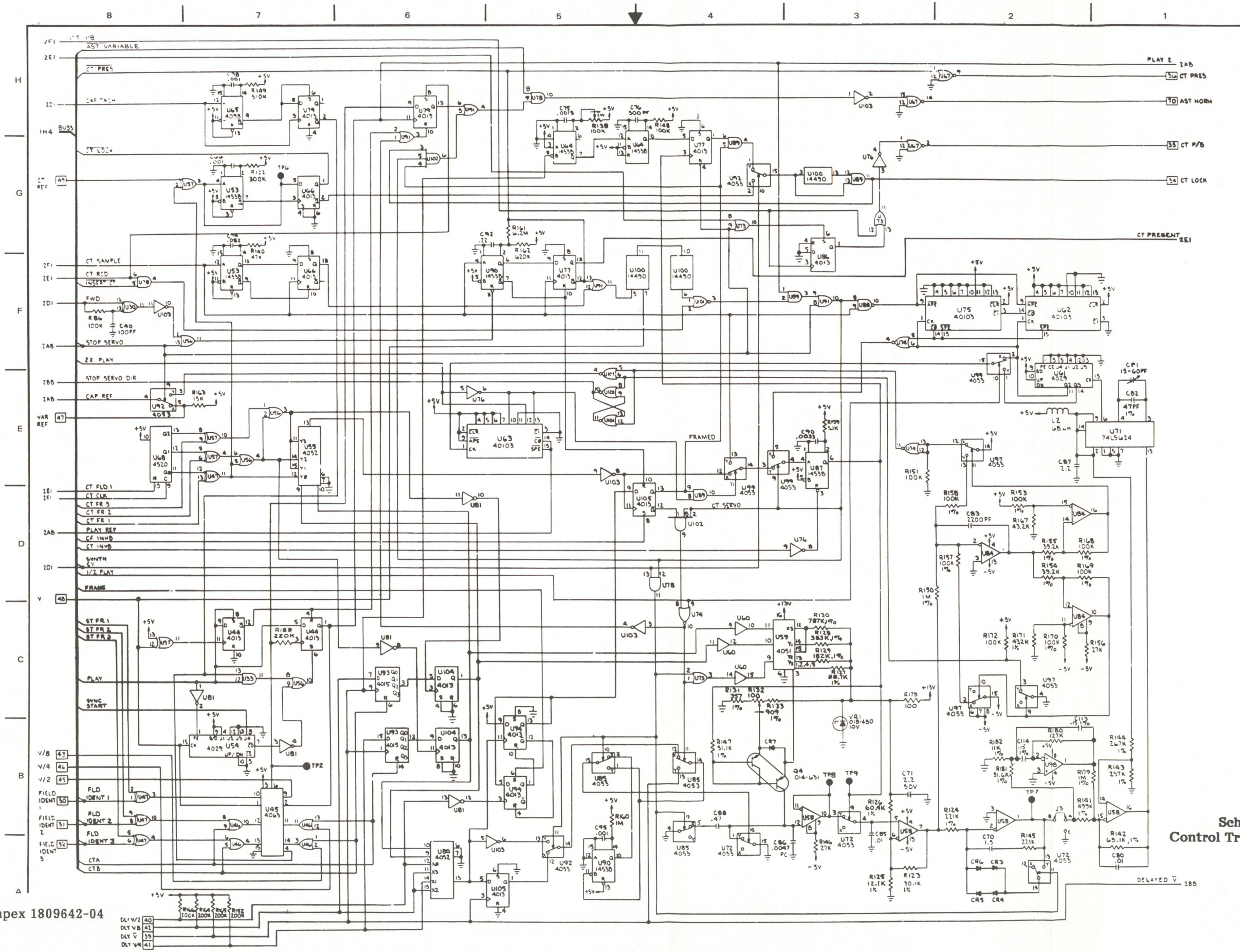
REF DES	U6,7	U102	U88	U45	U4,5	U100	U69,82,83	U95,106	U42,74,101	U70	U23,35	U36	U6	U65,40	U96,107	U9	U10	U93
AMPEX	590-488	590-509	590-506	589-602	590-542	002-081	590-773	001-024	590-528	590-847	001-974	002-122	590-493	590-829	589-823	589-974	000-027	590-480
VENDOR	CD4502	CD4073	CD4011	CD4063	LM311	MC14490	74C374	74C244	CD4001	74LS245	74LS83	DAC-10FX	CD4043	CD4098	74LS138	LM317LZ	MC14574	CD4015
VOLTAGE	+5V (16)	+5V(14)	+5V (14)	+5V(16)	+13V(8)	+5V(16)	+5V(20)	+5V(20)	+5V (14)	+5V(20)	+5V(5)	+13V (15)	+5V (16)	+5V (16)	+5V (16)	+13V(3)	+5V(4)	+5V(16)
VSS/GND	(8)	(7)	(7)	(8)	-13V(4)	(8)	(10)	(10)	(7)	(10)	(12)	-13V (3)	(8)	(8)	(8)	-	(13)	(8)
REF DES	U8,26,29,33,44,66,77,79,86,94,104,109	U7,17,53,78,89	U28,31,39,53,64,81,90	U11,36/U27,48,58/	U43, 92,99	U3,16,21,24,72,86,108	U97	U55,80	U2,14,15,25,37,98	U71	U84	U41,76,81,103	U19,68	U30,47,57	U1	U50	U12,13,22,34,52,59,6	U49,51,62,63,75
AMPEX	590-546	590-556	590-486	000-036	590-450	590-450	590-450	590-729	590-502	000-035	000-028	590-592	590-570	590-489	001-995	002-879	590-571	001-959
VENDOR	CD4013	CD4081	MC14538	MC14573	CD4053	CD 4053	CD4053	CD4052	TL072	74LS624	MC14575	CD4069	CD4520	CD4030	NE5532	CD4044	CD4029	CD40103
VOLTAGE	+5V (14)	+5V(14)	+5V(16)	+5V (4)	+5V(16)	+5V(16)	+5V (16)	+5V(16)	—	—	+5V (4)	+5V(14)	+5V (16)	+5V(14)	+13V (8)	+5V(16)	+5V(16)	+5V(16)
VSS/GND	(7)	(7)	(8)	-5V(13)/GND(13)	GND(6,7&8)	[illegible]-5V(7)	-5V(6,7,8)	(8)	—	—	-5 (13)	(7)	(8)	(7)	-13V (4)	(8)	(8)	(8)

REFERENCE DESIGNATION	
LAST USED	NOT USED
C119 CR10 FL 4 J3 L2 Q4 R189 TP10 U108 VR5 TPG8	J2 L1 C110 115 118 R105,134,135,183,184

Schematic No. 1467152T/U.
Control Track Capstan Servo PWA,
A15, NTSC, PAL-M
(Sheet 1 of 3)



Schematic No. 1467152T/U.
Control Track Capstan Servo PWA,
A15, NTSC, PAL-M
(Sheet 2 of 3)



Schematic No. 1467152T/U.
Control Track Capstan Servo PWA,
A15, NTSC, PAL-M
(Sheet 3 of 3)

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07
				QTY REQD PER DASH NUMBER						
1										
2										
3	1467158	SCHEMATIC		(-)	A	B	C	D	E	F
4	250-155	BUMPER PAD, SYNTHETIC RUBBER		3	3	3	3	3	3	3
5	1400004-01	EJECTOR, PWB		1	1	1	1	1	1	1
6	1467008-XX	LABEL		1	1	1	1	1	1	1
7	1467009-01	SHIELD		1	1	1	1	1	1	1
8										
9	283-105	SPACER, PLAIN, .140 ID X .250 OD X .125 LG		1	1	1	1	1	1	1
10	471-063	SCREW, MACH, PAN HD., XREC DR., #4-40 X .438 LG		1	1	1	1	1	1	1
11	474-500	SCREW, MACH, PAN HD., XREC, DR., #4-40 X .312 LG		7	7	7	7	7	7	7
12	502-002	WASHER, LOCK, HELICAL SPRING, #4		1	1	1	1	1	1	1
13	506-011	WASHER, BOWED		1	1	1	1	1	1	1
14										
15										
16										
17										
18	064-315	CAPACITOR, CER., MONO, 1.5uF, 50V, 20%	C70	1	1	1	1	1	1	1
19	064-316	2.2uF, 50V, 20%	C4,49,51,71,87	6	5	5	5	5	5	5
20	064-747	.082uF, 50V, 5%	C1,7-12,15,17,25, 30,33,35,44,45,47,	44	44	44	44	44	44	44
21		62,64,65,67,68,72-74,79,84,89,91,93, 94,96-106,108,109,116								
22	064-684	100pF, 50V, 1%	C34,40,41,58,63, 77	6	6	6	6	6	6	6
23	064-737	3pF, 50V, ±.5pF	C3	1	1	1	1	1	1	1
24										
25	064-696	180pF, 50V, 1%	C19	1	1	1	1	1	1	1
26	064-697	300pF, 50V, 1%	C76	2	1	1	1	1	1	1
27	064-705	2200pF, 100V, 5%	C32,83,117	4	4	3	3	3	3	3
28	064-768	.0033uF, 50V, 5%	C90	1	1	1	1	1	1	1
29	064-723	750pF, 100V, ±5%	C56		1	1	1	1	1	1
30										
31										
32										
33										
34	064-788	36pF, 50V, ±.5pF	C14	1	1	1	1	1	1	1
35										
36										
37	064-754	CAPACITOR, CER., MONO, .01uF, 50V, 5%	C46,80,85,119	3	4	4	4	4	4	4

LM-1467156

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467156 SHEET 2 OF 7	REV G

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07
38	064-756	CAPACITOR, CER., MONO, .022uF, 50V, 5%	C21	1	1	1	1	1	1	1
39	064-758	↑ ↑ ↑ .033uF, 50V, 5%	C28	1	1	1	1	1	1	1
40	064-785	47pF, 50V, ±5%	C13,24,26,82	4	4	4	4	4	4	4
41										
42	064-765	1500pF, 50V, 5%	C75	1	1	1	1	1	1	1
43	064-775	20pF, 50V, ±.5pF	C6,27	2	2	2	2	2	2	2
44	064-777	560pF, 50V, 1%	C110	1	-	-	-	-	-	-
45	064-795	6800pF, 50V, 5%	C120	1	1	1	1	1	1	1
46	064-799	.22uF, 50V, 5%	C42,92	3	2	2	2	2	2	2
47	064-819	1000pF, 50V, 1%	C66	1	1	1	1	1	1	1
48	064-836	1000pF, 50V, 5%	C5,29,38,39,52, 69,78,95	10	8	8	8	3	8	8
49										
50		↓ ↓ ↓								
51	064-685	CAPACITOR, CER., MONO, 200pF, 50V, 1%	C55	1		1	1	1	1	1
52	064-790	CAPACITOR, CER., MONO, 470pF, 50V, ±1%	C110			1	1	1	1	1
53	064-826	CAPACITOR, CER., MONO, 3,300pF, 50V, 1%	C121				1	1	1	1
54	055-906	CAPACITOR, POLYCARBONATE, .082uF, 100V, 1%	C20	1		1	1	1	1	1
55	056-670	↑ ↑ .15uF, 100V, 1%	C37,113,114	3	3	3	3	3	3	3
56	069-042	↓ ↓ .56uF, 100V, 1%	C88	1	1	1	1	1	1	1
57	069-145	CAPACITOR, POLYCARBONATE, .0056uF, 100V, 1%	C86	1	1	1	1	1	1	1
58										
59										
60										
61	069-121	CAPACITOR, POLYCARBONATE, .033uF, 100V, 1%	C18	1	1	1	1	1	1	1
62										
63										
64										
65	037-109	CAPACITOR, TANT., 10uF, 20V, 10%	C2,31,48,50	4	4	4	4	4	4	4
66	037-726	↑ ↑ 3.3uF, 15V, 10%	C43	1	1	1	1	1	1	1
67										
68										
69		↓ ↓								
70	037-750	CAPACITOR, TANT., 68uF, 20V, 10%	C16,22,23,107	4	4	4	4	4	4	4
71										
72										
73										
74										
75	038-248	CAPACITOR, VARIABLE. 15-60pF, 100V	C81,115	2	2	2	2	2	2	2
76										
77										
78										
79										
80	013-450	DIODE, ZENER, 10V, IN961B	VR1-5	5	5	5	5	5	5	5
81	013-599	DIODE, SWITCHING, CD458	CR1-9	9	9	9	9	9	9	9
82	051-770	FERRITE - CHOKE	FL1-4	4	4	4	4	4	4	4

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ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07
83	051-580	INDUCTOR, FIXED, 22mH, 10%	L1	1	1	1	1	1	1	1
84										
85	540-017	INDUCTOR, FIXED, 68uH, 5%	L2	1	1	1	1	1	1	1
86										
87										
88										
89										
90	000-027	INTEGRATED CIRCUIT, MC14574	U10	1	1	1	1	1	1	1
91	000-028	MC14575	U84	1	1	1	1	1	1	1
92										
93	000-035	74LS624	U71	1	1	1	1	1	1	1
94	000-036	MC14573	U11,27,38,58	4	4	4	4	4	4	4
95										
96										
97										
98	001-024	74C244 [1]	U95,106	2	2	2	2	2	2	2
99										
100										
101										
102	001-974	74LS83	U23,35	2	2	2	2	2	2	2
103	590-847	74LS245	U70	1	1	1	1	1	1	1
104										
105										
106	002-081	MC14490	U100	1	1	1	1	1	1	1
107	001-959	CD40103BE [1]	U49,51,62,63,75	5	5	5	5	5	5	5
108	002-051	CD4063BE [1]	U45	1	1	1	1	1	1	1
109										
110	589-823	74LS138	U96,107	2	2	2	2	2	2	2
111	589-974	LM317LZ	U9	1	1	1	1	1	1	1
112										
113	590-489	CD4030BE [1]	U30,47,57	3	3	3	3	3	3	3
114	590-493	CD4043BE [1]	U6	1	1	1	1	1	1	1
115	001-995	NE5532	U1	1	1	1	1	1	1	1
116	590-450	CD4053BE [1]	U3,16,21,24,43,48,72,85,92,97,99,108	12	12	12	12	12	12	12
117										
118										
119	590-486	MC14538	U28,31,39,53,64,87,90	7	7	7	7	7	7	7
120										
121	590-488	CD4502BE	U67	1	1	1	1	1	1	1
122	590-506	CD4011BF	U88	1	1	1	1	1	1	1
123	590-509	CD4073BE [1]	U102	1	1	1	1	1	1	1
124										
125	590-502	TL072	U2,14,15,25,37,98	6	6	6	6	6	6	6
126	590-528	CD4001BE [1]	U42,74,101	3	3	3	3	3	3	3
127	002-879	INTEGRATED CIRCUIT, CD4044 [1]	U50	1	1	1	1	1	1	1

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ITEM NO	PART NUMBER	DESCRIPTION		REF DESIG	-01	-02	-03	-04	-05	-06	-07
					QTY REQD PER DASH NUMBER						
128	590-542	INTEGRATED CIRCUIT, LM311		U4,5	2	2	2	2	2	2	2
129	590-546		CD4013BE	U8,26,29,32,44, 66,77,79,86,94, 104,105	12	12	12	12	12	12	12
130											
131											
132	590-556		CD4081BE	U7,17,33,78,89	5	5	5	5	5	5	5
133	590-480		CD4015BE	U93	1	1	1	1	1	1	1
134	590-570		CD4520BC	U19,68	2	2	2	2	2	2	2
135	590-571		CD4029BE	U12,13,22,34,52, 54,61	7	7	7	7	7	7	7
136	590-592		CD4069UF	U41,76,81,103	4	4	4	4	4	4	4
137											
138	590-593		CD4071BP	U18,20,46,56,73, 91	6	6	6	6	6	6	6
139	590-729		CD4052BE	U55,80	2	2	2	2	2	2	2
140	002-122		DAC10FX	U36	1	1	1	1	1	1	1
141	590-724		CD4051BE	U59	1	1	1	1	1	1	1
142	590-773		74C374	U69,82,83	3	3	3	3	3	3	3
143	590-829		CD4098BE	U40,65	2	2	2	2	2	2	2
144	590-295	INTEGRATED CIRCUIT, MC14504		U60	1	1	1	1	1	1	1
145											
146											
147											
148											
149	020-915	RELAY, GENERAL PURPOSE, DPDT		K1	1	1	1	1	1	1	1
150											
151											
152											
153											
154	066-652	RESISTOR, C.F., 470K OHMS, .25W, 5%		R82,83	2	2	2	2	2	2	2
155	066-665		1K	R93,136,187,188	4	4	4	4	4	4	4
156	066-672		620K	R162	1	1	1	1	1	1	1
157											
158	066-673		1M	R25,28,42,87,160	5	5	5	5	5	5	5
159	066-712		22K	R14,16,35	4	3	3	3	3	3	3
160	066-717		47K	R140,189	3	2	2	2	2	2	2
161	066-812		100	R179	1	1	1	1	1	1	1
162											
163											
164	066-830		10K	R26,65,80,94,97,135, 137,139,191	9	9	9	9	9	9	9
165	066-845		24K	R190	1	1	1	1	1	1	1
166	066-842		5.1K	R29,61,159	3	3	3	3	3	3	3
167	066-846		30K	R185	1	1	1	1	1	1	1
168	066-847		33K	R27,64	2	2	2	2	2	2	2
169	066-849		100K	R52,62,86,106,148,151, 172,186	8	8	8	8	8	8	8
170											
171	066-850		240K	R81	1	1	1	1	1	1	1
172	066-851	RESISTOR, C.F., 510K OHMS, .25W, 5%		R149,173	2	2	2	2	2	2	2

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AMPEX | Ampex Corporation REDWOOD CITY CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467156 SHEET 5 OF 7	REV G

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07
173	066-853	RESISTOR, C.F., 200K OHMS, .25W, 5	R85,90,117,121,152, 164,165,166	8	8	8	8	8	8	8
174	066-856	15K	R104,163	1	2	2	2	2	2	2
175	066-859	240	R33	1	1	1	1	1	1	1
176										
177	066-866	27K	R41,60,146,156	5	4	4	4	4	4	4
178										
179	066-913	220K	R96	1	-	-	-	-	-	-
180										
181	066-940	2.2M	R36,38	3	2	2	2	2	2	2
182										
183	066-864	13K	R40	1	1	1	1	1	1	1
184	066-913	220K	R193			1	1	1	1	1
185										
186										
187										
188										
189	076-051	300K	R122	1	1	1	1	1	1	1
190	076-062	2M	R120	1	1	1	1	1	1	1
191										
192										
193	076-991	RESISTOR, C.F., 2.4M OHMS, .25W, 5%	R95,110	2	2	2	2	2	2	2
194										
195										
196										
197										
198										
199	041-788	RESISTOR, FIXED, COMP, 6.2M OHMS, .25W, 5%	R161	1	1	1	1	1	1	1
200	041-794	RESISTOR, FIXED, COMP, 11M OHMS, .25W, 5%	R101	1	1	1	1	1	1	1
201										
202										
203										
204										
205										
206										
207	062-600	RESISTOR, M.F., 11K OHMS, .25W, 1%	R111	1	1	1	1	1	1	1
208	062-601	100K	R15,18,20,21,23, 45,47,51,53-57, 153,157,158,168, 169,170	19	19	19	19	19	19	19
209										
210	062-559	21K	R31	1	1	1	1	1	1	1
211										
212										
213										
214	062-624	1K	R1,4,71,74	4	4	4	4	4	4	4
215										
216	062-639	3.01K	R44	1	1	1	1	1	1	1
217	062-684	RESISTOR, M.F., 243 OHMS, .25W 1%	R8,10,78,79	4	4	4	4	4	4	4

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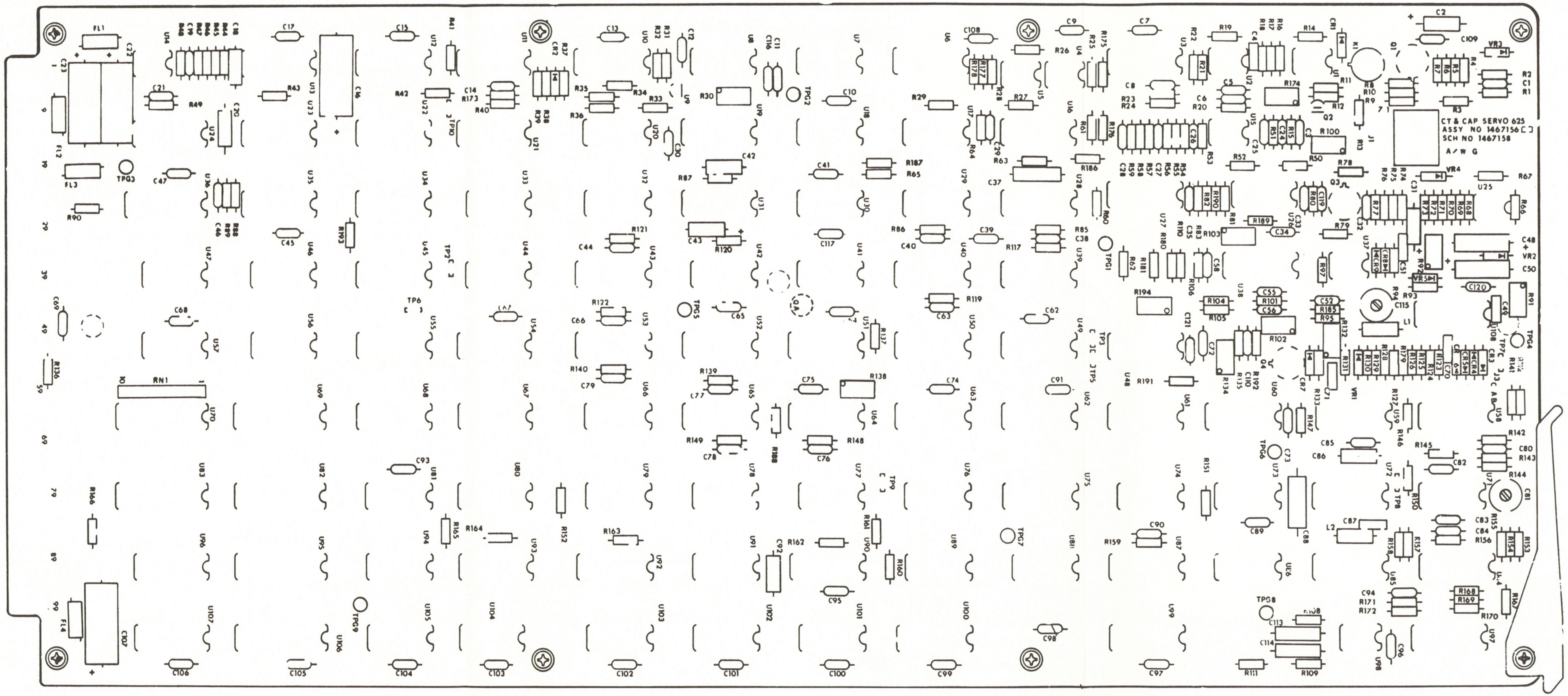
ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07
218	062-693	RESISTOR, M.F., 20K OHMS, .25W 1%	R2,3,58,59,66-69, 72,73,119,180,181	13	13	13	13	15	15	15
219										
220	062-796	1M	R46,112,150	3	3	3	3	3	3	3
221	062-797	31.6K	R109	1	1	1	1	1	1	1
222										
223										
224	062-986	12.1K	R125	1	1	1	1	1	1	1
225	062-847	100	R6,7,76,77	4	4	4	4	4	4	4
226										
227	062-889	357	R131	1	1	1	1	1	1	1
228	062-932	1.5K	R176	2	1	1	1	1	1	1
229	062-922	909	R133	1	1	1	1	1	1	1
230	062-961	3.92K	R32,37,39	3	3	3	3	3	3	3
231	062-968	4.99K	R43,49,105	2	3	3	3	3	3	3
232	062-902	499	R11	1	1	1	1	1	1	1
233	062-945	2.43K	R177		1	1	1	1	1	1
234										
235										
236										
237	066-806	43.2K	R167,171	2	2	2	2	2	2	2
238	066-159	1.78K	R34	1	1	1	1	1	1	1
239	066-011	39.2K	R154,155	2	2	2	2	2	2	2
240	066-008	28K	R5,75	2	2	2	2	2	2	2
241	066-015	51.1K	R147	1	1	1	1	1	1	1
242	062-983	10K	R9,70,88,89	4	4	4	4	4	4	4
243	062-966	4.75K	R13	1	1	1	1	1	1	1
244	066-023	237K	R143	1	1	1	1	1	1	1
245	066-035	499K	R141	1	1	1	1	1	1	1
246										
247	066-183	60.4K	R126	1	1	1	1	1	1	1
248	066-655	68.1K	R142	1	1	1	1	1	1	1
249	066-656	30.1K	R123	1	1	1	1	1	1	1
250	066-031	383K	R128	1	1	1	1	1	1	1
251	066-014	47.5K	R175,178	2	2	2	2	2	2	2
252	066-733	49.9K	R12,17,19	3	3	3	3	3	3	3
253	066-803	182K	R129	1	1	1	1	1	1	1
254	066-875	127K	R108	1	1	1	1	1	1	1
255	066-763	221K	R124,145	2	2	2	2	2	2	2
256										
257	066-926	RESISTOR, M.F., 267K OHMS, .25W, 1%	R144	1	1	1	1	1	1	1
258										
259										
260										
261	066-519	RESISTOR, M.F., 392K OHMS, .25W, 1%	R22	1	1	1	1	1	1	1
262										

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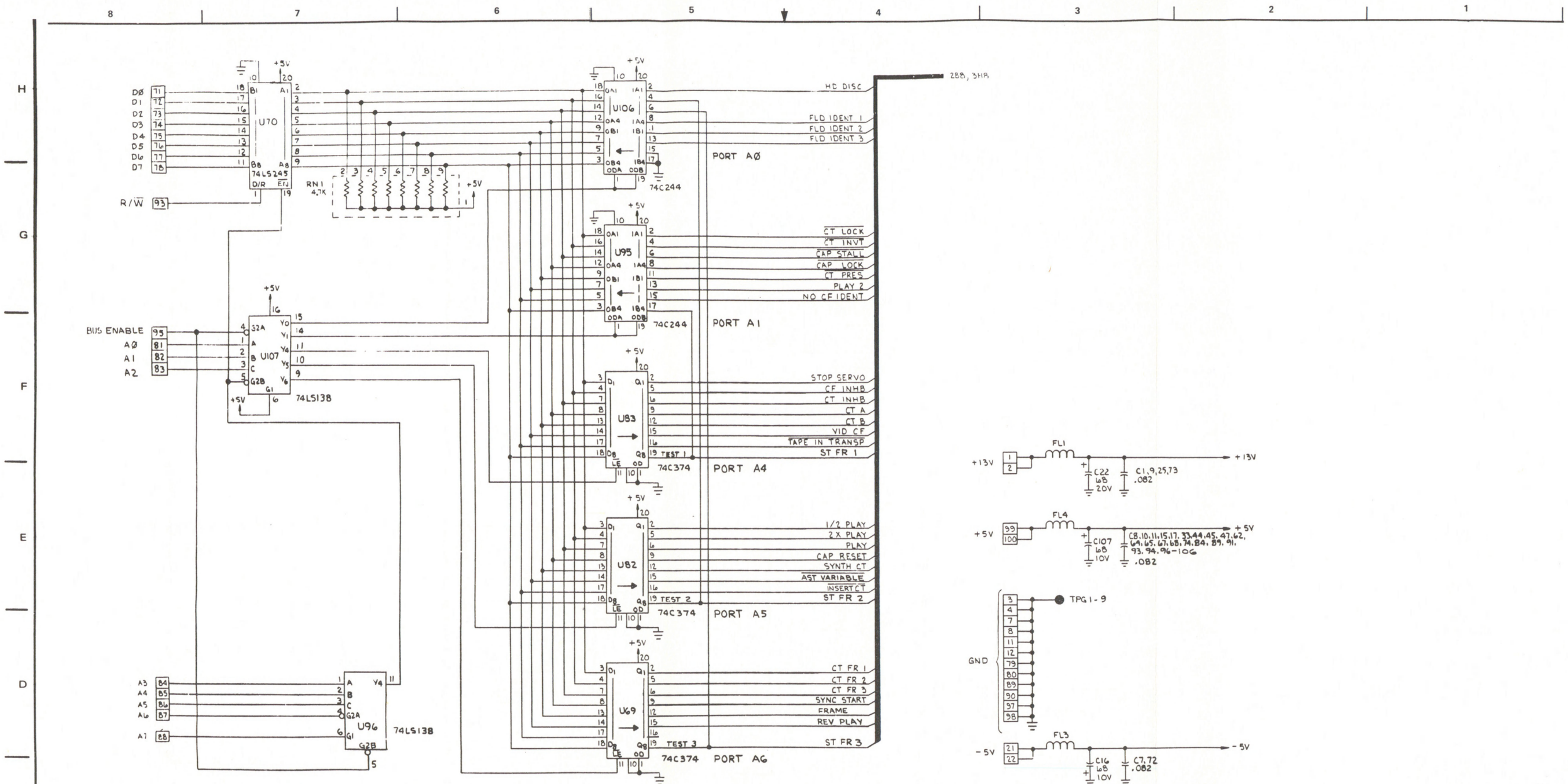
AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467156 SHEET 7 OF 7	REV G

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07			
263	076-383	RESISTOR, M.F., 787K OHMS, .25W, 1%	R130	1	1	1	1	1	1	1			
264													
265													
266													
267	076-378	604K	R24,50	2	2	2	2	2	2	2			
268	076-381	750K	R48	1	1	1	1	1	1	1			
269	076-388	931K	R63	1	1	1	1	1	1	1			
270	076-126	RESISTOR, M.F., 88.7K OHMS, .25W, 1%	R127	1	1	1	1	1	1	1			
271													
272	049-617	RESISTOR, C.F., 33K OHMS, .125W, 5%	R192		1	1	1	1	1	1			
273													
274	039-241	RESISTOR, PACK, 4.7K OHMS	RN1	1	1	1	1	1	1	1			
275													
276													
277	058-575	RESISTOR, VARIABLE, 100K OHMS, .5W, 10%	R92,100,102,103,134,138	5	6	6	6	6	6	6			
278	058-601	1K	R30	1	1	1	1	1	1	1			
279	075-143	1M	R174	1	1	1	1	1	1	1			
280													
281													
282	058-565	10K	R91	1	1	1	1	1	1	1			
283	058-573	RESISTOR, VARIABLE, 100 OHMS, .5W, 10%	R132	1	1	1	1	1	1	1			
284	058-893	RESISTOR, VARIABLE, 200K OHMS, .5W, 10%	R194				1	1	1	1			
285													
286	014-631	TRANSISTOR, CD515	Q4	1	1	1	1	1	1	1			
287													
288													
289													
290	579-018	TRANSISTOR, VN10KM	Q2		1	1	1	1	1	1			
291													
292													
293													
294	580-944	TRANSISTOR, LM394	Q1,3	2	2	2	2	2	2	2			
295													
296	140-437	CONNECTOR SIGNAL, CIRCUIT PLUG, RECT.	REF:J3	1	1	1	1	1	1	1			
297	135-423	HEADER ASSEMBLY, 12 POS	REF:J1	1	1	1	1	1	1	1			
298													
299	187-055	TERMINAL, WIREWRAP	REF:J3	3	3	3	3	3	3	3			
300	187-259	TERMINAL, P.C., TEST POINT	TP2,3,5-10	8	8	8	8	8	8	8			
301	173-620	TERMINAL, STUD, TURRET	TPG1-9							9			
		NOTES:											
		1 STATIC SENSITIVE DEVICE, SPECIAL HANDLING REQUIRED PER AMPEX STD HE1-1.											

LM-1467156



Assembly No. 1467156-07G.
Control Track and Capstan Servo PWA, A15, PAL/SECAM



NOTES ; UNLESS OTHERWISE SPECIFIED

1. ALL RESISTANCE VALUES ARE IN OHMS 1/4W, 5%.
2. ALL CAPACITANCE VALUES ARE IN MICROFARADS.
3. ALL DIODES ARE P/N 013-599
4. SCHEMATIC REFLECTS PWA 1467156-07
5. I.C.'S WITH UNUSED SECTIONS ARE U6.7.11.19.24.27,78,37.39.40.42.48.50.55.60.68.74.76.80 84.86.87.88.98.102. UNUSED INPUTS TIED TO APPROPRIATE LOGIC LEVELS.

(S) STATIC SENSITIVE : SPECIAL HANDLING REQUIRED PER AMPEX STD. HE1-1

I.C. LIST

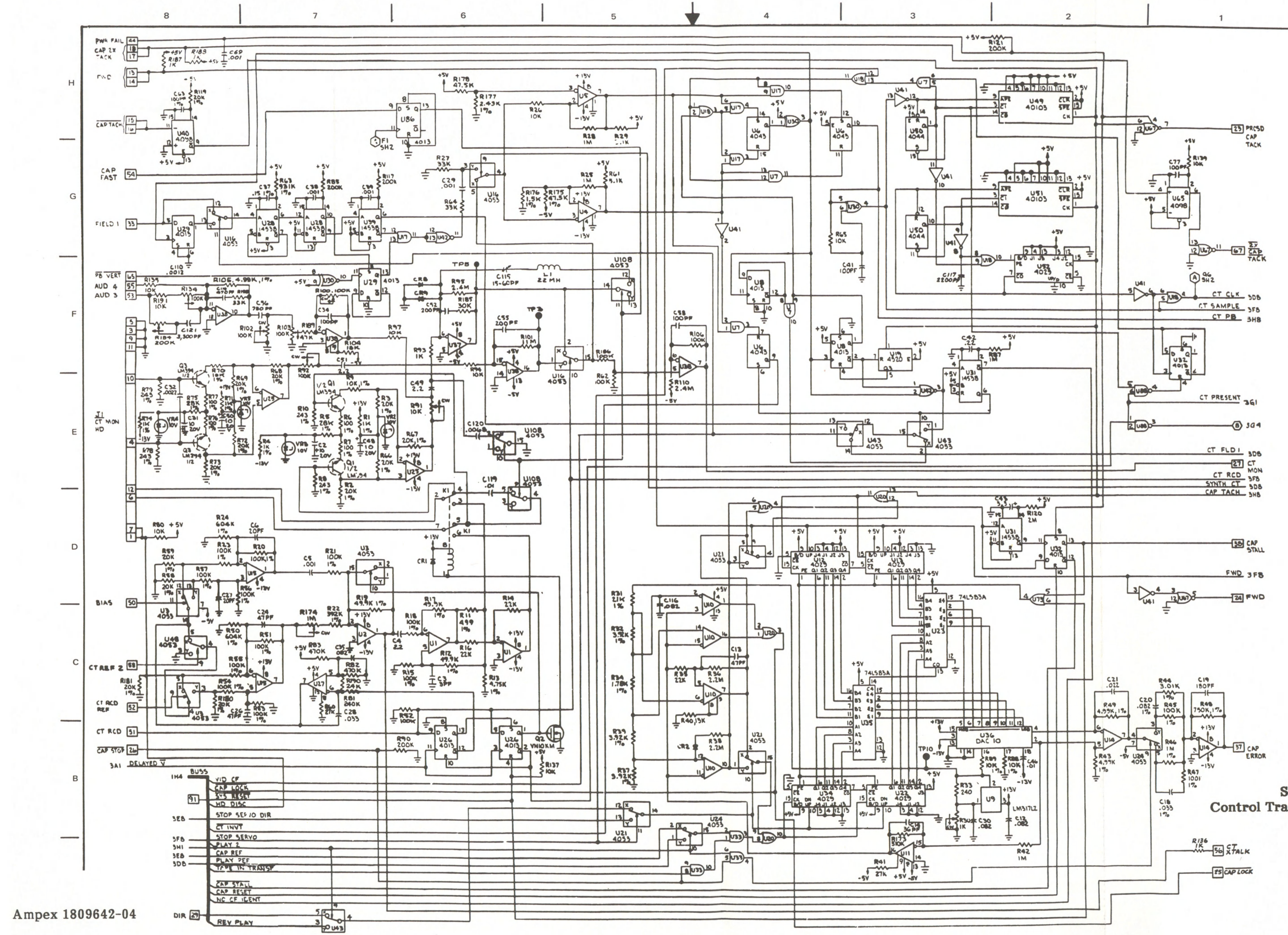
REF DES	U97	U80	U60
AMPEX	590-450	590-724	590-295
VENDOR	CD4053	CD4051	MC14504
VCC	16	+13V (16)	+5V(1) +13V(16)
VSS	-5V(6,7&8)	8	8 & 13

REF DES	U67	U102	U88	U45	U4,5	U100	U69,82,83	U95,106	U42,74,101	U70	U23,35	U36	U6	U40,85	U96,107	U9	U10	U93
AMPEX	590-488	590-509	590-506	002-051	590-542	002-081	590-773	001-024	590-528	590-847	001-974	002-122	590-493	590-829	589-823	589-974	000-027	590-480
VENDOR	CD4502	CD4073	CD4011	CD4063	LM311	MC14490	74C374	74C244	CD4001	74LS245	74LS83	DAC 10	CD4043	CD4098	74LS138	LM317LZ	MC14574	CD4015
VCC	16	14	14	16	8	16	20	20	14	20	5	+13V(15)	16	16	16	3	4	16
VSS	8	7	7	8	4	8	10	10	7	10	12	-13V(3)	8	8	8		13	8

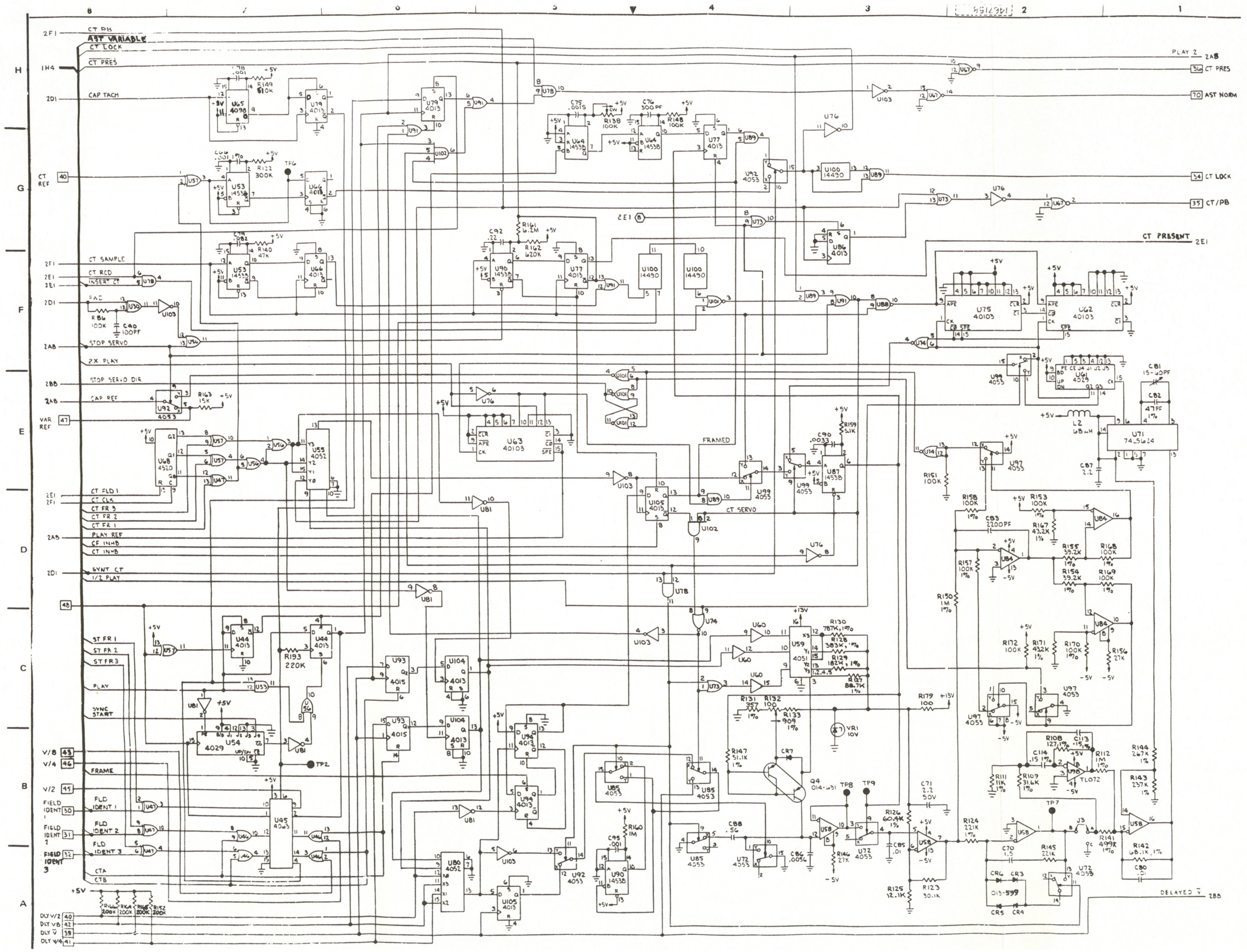
REF DES	[illegible]	U7,17,33,76,89	U28,31,...	U11,27,36,58	U43,...	[illegible]	U18,20,...	U55,80	U2,14,15,25,37,98	U71	U84	U41,78,81,102	U19,...	U30,47,57	U1	U50	U12,13,...	U49,51,62,63,73
AMPEX	590-546	590-556	590-486	000-036	590-450	590-450	590-593	590-729	590-502	000-035	000-028	590-592	590-570	590-489	001-995	002-879	590-571	001-959
VENDOR	CD4013	CD4081	MC14538	MC14573	CD4053	CD4053	CD4071	CD4052	TL072	74LS624	MC14575	CD4069	CD4520	CD4030	NE5532	CD4044	CD4029	CD40103
VCC	14	14	16	+5V(4)	16	16	14	16	8	14	4	14	16	14		16	16	16
VSS	7	7	8		GND (6,7&8)	GND(6,8) -5V(7)	7	8	4	7	13	7	8	7		8	8	8

REFERENCE DESIGNATION	
LAST USED	NOT USED
C121, CR9, FL4, J3, K1, L2, Q4, R194, RN1, TP10, TPG9, U108, VR5, E8	C36,53,54,57, C59-61,111, C112,118. J2 R84,96,98, 99,107, 113-116,118, 182-184. TP1,4

Schematic No. 1467158F.
Control Track Capstan Servo PWA,
A15, PAL/SECAM
(Sheet 1 of 3)



Schematic No. 1467158F.
Control Track Capstan Servo PWA,
A15, PAL/SECAM
(Sheet 2 of 3)



Ampex 1809642-04

Schematic No. 1467158F.
Control Track Capstan Servo PWA,
A15, PAL/SECAM
(Sheet 3 of 3)

10-373/10-374

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
				QTY REQD PER DASH NUMBER					
1									
2									
3	1467162	SCHEMATIC		)	-)	(A)	(C)	D	E
4									
5	1400004-01	EJECTOR, PWB		1	1	1	1	1	1
6	1467008-AY	LABEL, MODULE		1	1	1	1	1	1
7	1467009-01	SHIELD		1	1	1	1	1	1
8									
9	283-105	SPACER, PLAIN, .140 ID X .250 OD X .125 LG		1	1	1	1	1	1
10	471-063	SCREW, MACH, PAN HD, XREC DR. 4-40 X .438		1	1	1	1	1	1
11	474-500	SCREW, MACH, PAN HD, XREC DR, 4-40 X .312		7	7	7	7	7	7
12	502-002	WASHER, LOCK, #4		1	1	1	1	1	1
13	506-011	WASHER, BOWED		1	1	1	1	1	1
14	1374368-AS	INDUCTOR, VARIABLE, 22uH	L2	1	1	1	1	1	1
15									
16	1467420-03	PROM, VARIABLE SPEED-B (1)	U65				1	1	1
17	1467421-03	PROM, VARIABLE SPEED-A (1)	U54				1	1	1
18	1467424-02	PROM, TAPE REMAINING (1)	U84		1		1	1	1
19	1467421-02	PROM, VARIABLE SPEED-A (1)	U54		1		-	-	-
20	1467420-02	PROM, VARIABLE SPEED-B (1)	U65		1		-	-	-
21	1467420-01	PROM, VARIABLE SPEED-B (1)	U32	1	-		-	-	-
22	1467421-01	VARIABLE SPEED-A	U11	1	-		-	-	-
23	1467422-01	TSO-B	U32	1	1		1	1	1
24	1467423-01	TSO-A	U11	1	1		1	1	1
25	1467424-01	PROM, TAPE REMAINING	U84	1	-		-	-	-
26	1467425-01	GATE ARRAY, REF GEN (1)	U50	1	1		1	1	1
27	1467426-01	GATE ARRAY, TACH PROCESSOR (1)	U34,69	2	2	2	2	2	2
28									
29	064-653	CAPACITOR, CER. MONO, .1uF, 50V, 20%	C1,7,22-28,36,40, 42,44,45,46,48-50, 53,55,56,59-74,80, 84	37		39	39	39	39
30					38				
31									
32	064-655	47pF, 100V, 5%	C35,57,58, 62	4	4	-	-	-	-
33	064-668	300pF, 100V, 5%	C32,85	2	2	2	2	2	2
34									
35	064-670	150pF, 100V, 5%	C51,52,86, 88	2	4	4	4	4	4
36	064-671	22pF, 100V, 5%	C2	1	-		-	-	-
37	064-693	CAPACITOR, CER. MONO, 390pF, 50V, 5%	C10	1	1	1	1	1	1

LM-1467160

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467160 SHEET 2	REV L

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
38	064-694	CAPACITOR, CER. MONO, 200pF, 100V, 5%	C18	1	1	1	1	1	1
39	064-704	↑ ↑ ↑ .001uF, 50V, 5%	C2,30	1	2	2	2	2	2
40									
41									
42	064-731	680pF, 50V, 1%	C4	1	1	1	1	1	1
43	064-754	.01uF, 50V, 5%	C6,9,14,19, 78,79,81,87	5	8	8	8	8	8
44	064-758	.033uF, 50V, 5%	C17,41	1	2	2	2	2	2
45	064-133	.33uF, 100V, 20%	C13,39,47		3	3	3	3	3
46	064-762	100pF, 100V, 5%	C12,29	2	2	2	2	2	2
47	064-791	500pF, 50V, 5%	C43	1	1	1	1	1	1
48	064-306	.33uF, 100V, 20%	C13,39,47	3	-	-	-	-	-
49	064-316	↓ ↓ ↓ 2.2uF, 50V, 20%	C76,77		2	2	2	2	2
50	064-133	CAPACITOR, CER. MONO, .15uF, 100V, 20%	C37	1	-	-	-	-	-
51	064-306	CAPACITOR, CER., MONO., .15uF, 100V, 20%	C37		1	1	1	1	1
52									
53									
54									
55	064-927	CAPACITOR, CER. TEMP COMP, 470pF, 100V, 10%	C5	1	1	1	1	1	1
56									
57									
58									
59									
60	069-104	CAPACITOR, POLY, .0056uF, 50V, 5%	C16	1	-	-	-	-	-
61	069-111	CAPACITOR, POLY, .0015uF, 50V, 5%	C16		1	1	1	1	1
62									
63									
64	037-109	CAPACITOR, TANT., 10uF, 20V, 10%	C82,83		2	2	2	2	2
65	037-164	CAPACITOR, TANT, 1uF, 35V, 10%	C21	1	1	1	1	1	1
66	037-186	↑ ↑ 120uF, 10V, 10%	C75	1	1	1	1	1	1
67	037-367	2.2uF, 20V, 10%	C38	1	1	1	1	1	1
68									
69	037-736	22uF, 35V, 10%	C31	1	1		1	1	1
70	037-746	↓ ↓ 47uF, 20V, 10%	C33,34	2	2	2	2	2	2
71	037-991	CAPACITOR, TANT, 22uF, 15V, 10%	C11,15,54	3	3	3	3	3	3
72									
73									
74									
75	038-249	CAPACITOR, VARIABLE, 2-8pF	C3	1	1	1	1	1	1
76	038-254	CAPACITOR, VARIABLE, 9-35pF	C8	1	1	1	1	1	1
77									
78									
79									
80									
81	017-258	CRYSTAL, 2.013986MHZ	Y1	1	1	1	1	1	1
82									

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AMPEX | Ampex Corporation REDWOOD CITY CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467160 SHEET 3	L	REV

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
83	001-961	INTEGRATED CIRCUIT, 2.5V.SHUNT REG. LM336BZ2.5	U72	1	1	1	1	1	1
84									
85									
86	013-599	DIODE, SWITCHING	CR3-6,10-13	4	8	8	8	8	8
87	013-678	DIODE, CD451	CR7,8	2	2	2	2	2	2
88	581-726	DIODE, HOT CARRIER, MBR130B	CR9	1	1	1	1	1	1
89	581-734	DIODE, VARACTOR, MV2106	CR2	2	1	1	1	1	1
90	581-913	DIODE, VARACTOR, MV2215	CR1		1	1	1	1	1
91									
92									
93									
94	051-770	INDUCTOR, FILTER	FL1-4	4	4	4	4	4	4
95									
96									
97									
98	540-057	INDUCTOR, FIXED, 10uH, 5%	L1,3	2	2	2	2	2	2
99									
100									
101									
102									
103									
104									
105									
106									
107									
108	000-080	INTEGRATED CIRCUIT, TTL, 74LS629	U37	1	1	1	1	1	1
109									
110	589-814	74LS04	U91	1	1	1	1	1	1
111									
112	589-457	74LS245	U75	1	1	1	1	1	1
113	589-813	74LS00	U16,88	2	2	2	2	2	2
114	589-815	74LS08	U43,90	2	2	2	2	2	2
115									
116	589-820	74LS74	U24,77	2	2	2	2	2	2
117	589-821	74LS85	U96	1	1	1	1	1	1
118	589-823	74LS138	U85,86	2	2	2	2	2	2
119									
120	589-825	74LS157	U89	1	1	1	1	1	1
121	589-951	INTEGRATED CIRCUIT, TTL, 74LS191	U1,10 21,31,42, 48,49,53,64,76,87	11	11	11	11	11	11
122									
123									
124									
125									
126									
127									

LM-1467160

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467160 SHEET 4	REV L

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
128	000-036	INTEGRATED CIRCUIT, CMOS, 14573 ⟨1⟩	U8,29	2	2	2	2	2	2
129	000-074	4041	U67	1	1	1	1	1	1
130	001-043	4011	U39	1	1	1	1	1	1
131	590-487	4028	U40	1	1	1	1	1	1
132	002-081	14490	U45	1	1	1	1	1	1
133									
134									
135	001-021	AD558	U51,62,74	3	3	3	3	3	3
136									
137									
138	587-426	4046	U27	1	1		1	1	1
139									
140									
141									
142	590-442	4016	U19,58	2	2	2	2	2	2
143									
144	590-450	4053	U47,71,78	3	3	3	3	3	3
145									
146	590-476	14557	U4,13,23	3	3	3	3	3	3
147	590-478	4040	U25	1	1	1	1	1	1
148	590-480	4015	U46	1	1	1	1	1	1
149	590-481	4076	U68		1	1	1	1	1
150	590-486	14538	U18	1	1	1	1		1
151	590-505	4008	U80,83,94	2	3	3	3	3	3
152	590-513	4528	U56	1	1	1	1	1	1
153									
154	590-528	4001	U15,28	2	2	2	2	2	2
155	590-546	4013	U35	1	,	1	1	1	1
156	590-555	4006	U2,3,14	3	3	3	3	3	3
157	590-507	4070	U36,97	1	2	2	2	2	2
158	590-556	4081	U44,81	2	2	2	2	2	2
159	590-570	14520	U57,70,92	3	3	3	3	3	3
160	590-592	4069	U38,79	2	2	2	2	2	2
161	590-593	4071	U95	1	1	1	1	1	
162	590-724	4051	U20,30,41	3	3	3	3	3	3
163									
164									
165	590-773	74C374	U12,22,33,52,55, 59,66,73,82	9	9	9	9	9	9
166	001-024	74C244	U61,63	2	2	2	2	2	2
167	001-071	ICM7209	U5,6	2	2	2	2	2	2
168	003-197	INTEGRATED CIRCUIT, CMOS, ADC0820 ⟨1⟩	U60,93	2	2	2	2	2	2
169	590-447	INTEGRATED CIRCUIT, LINEAR, LM324	U7	2	1	1	1	1	1
170	590-561	INTEGRATED CIRCUIT, LINEAR, CA3140E	U26		1	1	1	1	1
171	587-682	INTEGRATED CIRCUIT, LINEAR, MC3403	U17		1	1	1	1	1
172	587-779	INTEGRATED CIRCUIT, VOLT REG, LM320T-5.2	U9		1	1	1	1	1

LM-1467160

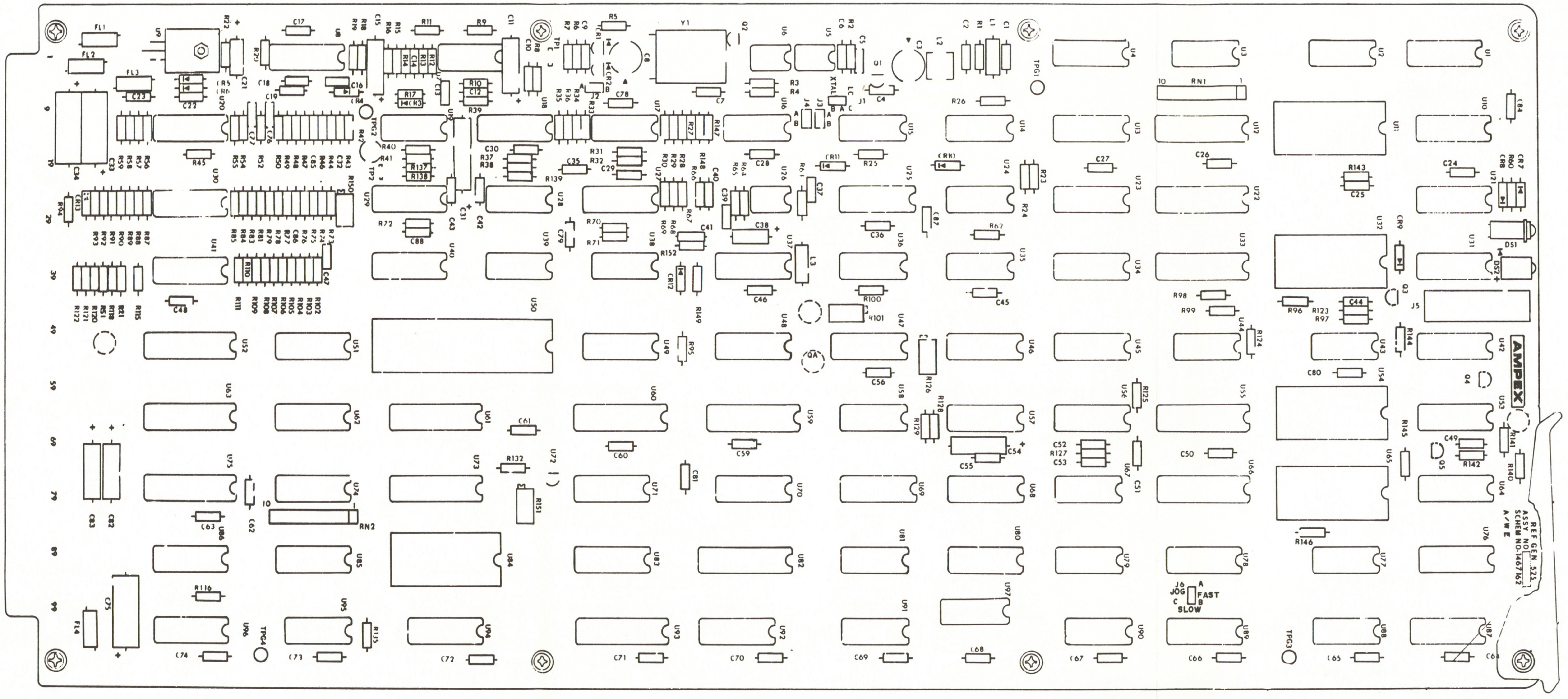
AMPEX	Ampex Corporation REDWOOD CITY CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467160 SHEET 5	REV L

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
173	066-665	RESISTOR, C.F., 1K OHMS, .25W, 5%	R2,6,63,96,97,123,132, 140,141,143,145,146	5	12	12	12	12	12
174	066-667	3K	R16	1	1	1	1	1	1
175	066-673	1M	R20	2	1	1	1	1	1
176									
177	066-712	22K	R10	1	1	1	1	1	1
178	066-718	5.6K	R65	1	1	1	1	1	1
179	066-826	2K	R132	1	-	-	-	-	-
180	066-928	2.4K	R36,68	2	2	2	2	2	2
181	066-830	10K	R4,17,25,26,41,43,62,98, 99,124,135,136,142	14	13	13	13	13	13
182	066-831	11K	R66	1	1	1	1	1	1
183	066-717	47K	R138		1	1	1	1	1
184									
185	066-817	430	R144	1	1	1	1	1	1
186	066-840	680	R15	1	1	1	1	1	1
187	066-841	1.3K	R14	1	1	1	1	1	1
188	066-842	5.1K	R27,71	2	3	3	2	2	2
189	079-063	5.1M	R152				1	1	1
190	066-844	16K	R12	1	1	1	1	1	1
191									
192	066-849	100K	R1,3,5,8,9,13,37-40,60, 64,70,100,125,127, 137,139	20	22	19	18	18	18
193									
194	066-668	4.7K	R149		1	1	1	1	1
195									
196	066-853	200K	R131	1	1	-	-	-	-
197	066-860	39K	R11	1	1	1	1	1	1
198									
199	066-865	12K	R69	1	1	1	1	1	1
200	066-866	27K	R22,74	2	2	2	2	2	2
201	066-867	RESISTOR, C.F., 51K OHMS, .25W, 5%	R7	1	1	1	1	1	1
202	066-689	RESISTOR, C.F., 2.2K OHMS, .25W, 5%	R23,24,94,95	4	4	4	4	4	4
203	066-752	RESISTOR, M.F., 11.8K OHMS, .1W, 1%	R29				1	1	1
204	066-442	RESISTOR, M.F., 10.5K OHMS, .25W, 1%	R32,34		2	2	2	2	2
205	062-967	RESISTOR, M.F., 4.87K OHMS, .25W, 1%	R35,67		2	2	2	2	2
206	066-386	RESISTOR, M.F., 6.65K OHMS, .25W, 1%	R32,34,35,67	4	-	-	-	-	-
207	042-332	RESISTOR, M.F., 24.9K OHMS, .25W, 1%	R19,121	1	2	2	2	2	2
208	066-010	37.4K	R102,105		2	2	2	2	2
209	062-693	20K	R72,75,77,79,81,83, 85,87,89,92,93,51	10	11	11	11	11	12
210	042-379	5.90K	R21						1
211	076-134	48.7K	R122		1	1	1	1	1
212	062-561	61.9K	R122	1	-	-	-	-	-
213	062-601	100K	R18	1	1	1	1	1	1
214	062-983	RESISTOR, M.F., 10.0K OHMS, .25W, 1%	R30,31,33,44,48, 50,52,54,56,58,91, 104,107,110,111, 120,128,129	31	18	18	18	18	18
215									
216	062-986	RESISTOR, M.F., 12.1K OHMS, .25W, 1%	R29	1	1	-	-	-	-
217	066-183	RESISTOR, M.F., 60.4K OHMS, .25W, 1%	R28	1	1	1	1	1	1

LM-1467160

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
218	066-710	RESISTOR, M.F., 19.6K OHMS, .25W, 1%	R73		1	1		1	1
219	066-803	RESISTOR, M.F., 182K OHMS, .25W, 1%	R108	1	1	1	1	1	1
220	066-181	28.7K	R109	1	1	1	1	1	1
221	066-060	26.1K	R121	1	-	-		-	-
222	062-559	21K	R55,59		2	2	2	2	2
223	066-925	22.1K	R45	1	1	1	1	1	1
224	066-387	53.6K	R115,118	2	2	2	2	2	2
225	066-656	30.1K	R49	1	1	1	1	1	1
226	066-019	118K	R57,78,84	2	3	3	3	3	3
227	076-349	95.3K	R84	1		-	-	-	-
228	066-657	RESISTOR, M.F., 38.3K OHMS, .25W, 1%	R88,90	2		-	-	-	-
229	039-323	RESISTOR, NETWORK, 10K	RN1,2	2	2	2	2	2	2
230	066-003	RESISTOR, M.F., 23.7K OHMS, .25W, 1%	R103,106		2	2	2	2	2
231	062-562	RESISTOR, M.F., 12.4K OHMS, .25W, 1%	R88,90		2	2	2	2	2
232	079-390	RESISTOR, M.F., 9.53K OHMS, .1W, 0.1%	R147			1	-	-	-
233	079-388	RESISTOR, M.F., 53.6K OHMS, .1W, 0.1%	R47,76		2	2	2	2	2
234	058-001	RESISTOR, VARIABLE, 50K	R42	1	-	-	-	-	-
235	058-251	RESISTOR, VARIABLE, 100K	R101,126	2		-	-	-	-
236	076-938	RESISTOR, M.F., 10K OHMS, .1W, 0.1%	R46,147,148		2	2	3	3	3
237	582-331	SOCKET, INTEGRATED CIRCUIT, 16 POS	U34,69	2	2	2	2	2	2
238	582-148	SOCKET, INTEGRATED CIRCUIT, 24 POS	U11,32,54,65, 84	5	5	5	5	5	5
239	582-149	SOCKET, INTEGRATED CIRCUIT, 40 POS	U50	1	1	1	1	1	1
240	580-319	TRANSISTOR, FET, 2N5555	Q1	1	-	-	-	-	-
241	580-647	TRANSISTOR, NPN, 2N3904	Q2-5	2	4	4	4	4	4
242	014-445	TRANSISTOR, FET, 2N5485	Q1		1	1	1	1	1
243	187-259	TERMINAL, PC, TEST POINT	TP1,2	1	2	2	2	2	2
244	140-437	JACK, SHORTING	J1-4,6	4	5	5	5	5	5
245	581-869	LED, RT ANGLE, YELLOW	DS2		1	1	1	1	1
246	140-767	CONNECTOR, SIG CKT, JACK, TELEPHONE	J5	1		1	1	1	1
247	187-055	PIN CONTACT	J1-A,B,C,J2-A,B,J3-A, B,J4-A,B,J6-A,B,C	9	12	12	12	12	12
248	581-835	LED, RT ANGLE, RED	DS2	1	-	-	-	-	-
249	060-537	LAMP, INCADESCENT, 14V	DS1	1		1	1	1	1
250	132-443	LIGHT PART, HOLDER	DS1	1		1	1	1	1
251	473-600	SCREW, MACH, 4-40 X .312 LG, NYLON		1		1	1	1	1
252	177-203	CONNECTOR PART, JACK COVER	REF:J5				1	1	1
253	075-087	RESISTOR, VARIABLE, 100K OHMS, 20T	R101,126		2	2	2	2	2
254	075-083	RESISTOR, VARIABLE, 10K OHMS, 20T	R151		1	1	1	1	1
255	498-426	NUT, HEX, 4-40, NYLON		1	1	1	1	1	1
256	075-079	RESISTOR, VARIABLE, 500 OHMS, 20T	R150		1		1	1	1
257	058-610	RESISTOR, VARIABLE, 20K OHMS, 1T	R42		1		1	1	1
258	173-620	TERMINAL, STUD, TURRET, SWAGE	TPG1-4						4
259									
260		NOTE:							
261		1 STATIC SENSITIVE, SPECIAL HANDLING REQUIRED							
262		PER AMPEX STD HE1-1.							

LM-1467160



Assembly No. 1467160-06L.
Reference Generator PWA, A16,
NTSC, PAL-M (Late)

NOTES. UNLESS OTHERWISE SPECIFIED.

1. ALL RESISTANCE VALUES ARE IN OHMS, 1/4W, 5%.
2. ALL CAPACITANCE VALUES ARE IN MICROFARADS.
3. ALL DIODES ARE P/N 013-599.
4. THIS SCHEMATIC REFLECTS PWA 1467160-06 & 1467163-06.

5 ▷ PRIOR TO PRESTRESS. PART IS STD INTERSIL : ICM 7209 IPA.

6 ▷ SEE TABLE 1.

7 ▷ STATIC SENSITIVE. SPECIAL HANDLING REQUIRES PER AMPEX STD [illegible].

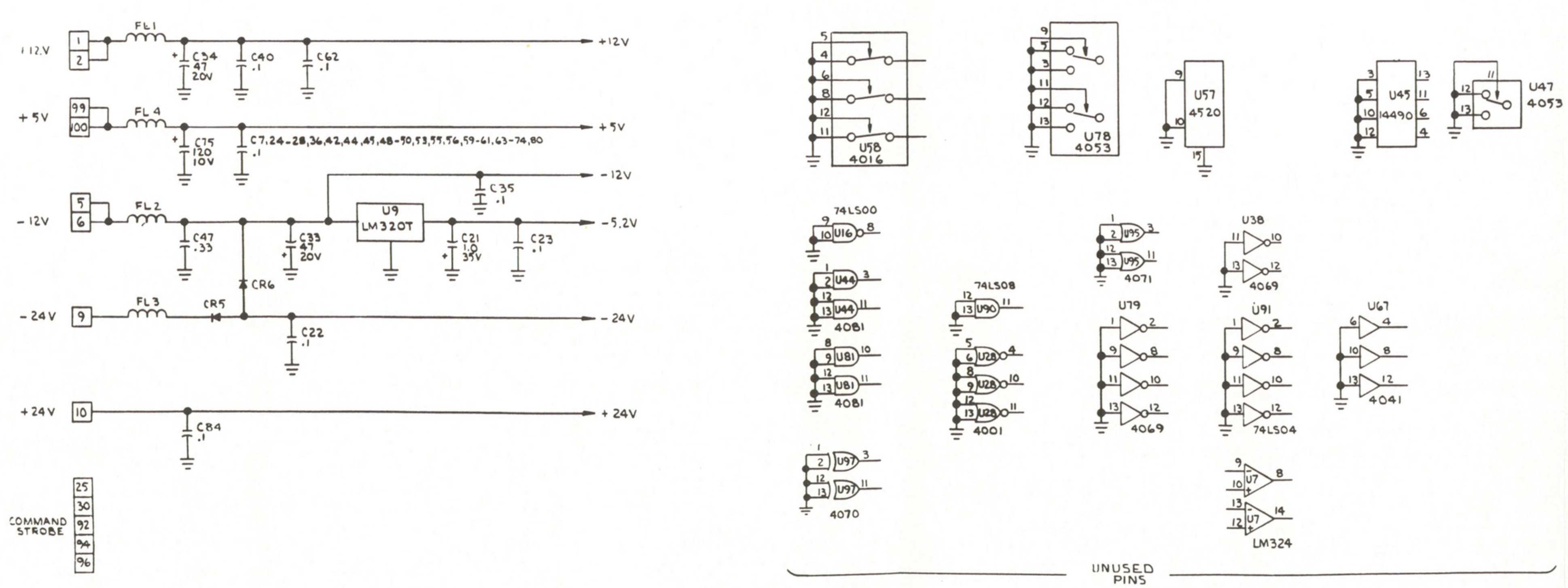
8 ▷ REMOVE RESISTOR R21 WHEN AIR PACKAGE 1468060-04 IS INSTALLED.

I.C. LIST

ITEM NO	REF DES	AMPEX PN	VENDOR PN	VOLTAGE	GROUND
	U1.10.21.31.42.48.49 53.64.76.87	589-951	74LS191	16	8
7 ▷	U2.3.14.	590-555	4006	14	7
7 ▷	U4.13.23	590-476	14557	16	8
7 ▷	U5.6 5 ▷	001-071	ITS9199	—	—
	U7	590-447	LM324	—	—
7 ▷	U8.29	000-036	MC14573	—	—
	U9	587-779	LM320T	—	—
7 ▷	U11	1467423	—	24	12
7 ▷	U12.22.33.52.55. 59.66.73.82	590-773	74C374	20	10
7 ▷	U15.28	590-528	4001	14	7
	U16.88	589-813	74LS00	14	7
	U17	587-682	MC3403	—	—
7 ▷	U18	590-486	4538	16	8
7 ▷	U19.58	590-442	4016	14	7
7 ▷	U20.30.41	590-724	4051	16	8
	U24.77	589-820	74LS74	14	7
7 ▷	U25	590-478	4040	16	8
	U26	590-561	CA3140E	—	—
7 ▷	U27	587-428	4046	16	8
7 ▷	U32	1467422	—	24	12
7 ▷	U34.69	1467426	—	16	8
7 ▷	U35	590-546	4013	14	7
7 ▷	U36.97	590-507	4070	14	7
	U37	000-080	74LS629	16	8
7 ▷	U38.79	590-592	4069	14	7
	U39	001-043	4011	14	7
7 ▷	U40	590-487	4028	16	8
	U43.90	589-815	74LS08	14	7
7 ▷	U44.81	590-556	4081	14	7
7 ▷	U45	002-081	14490	16	8

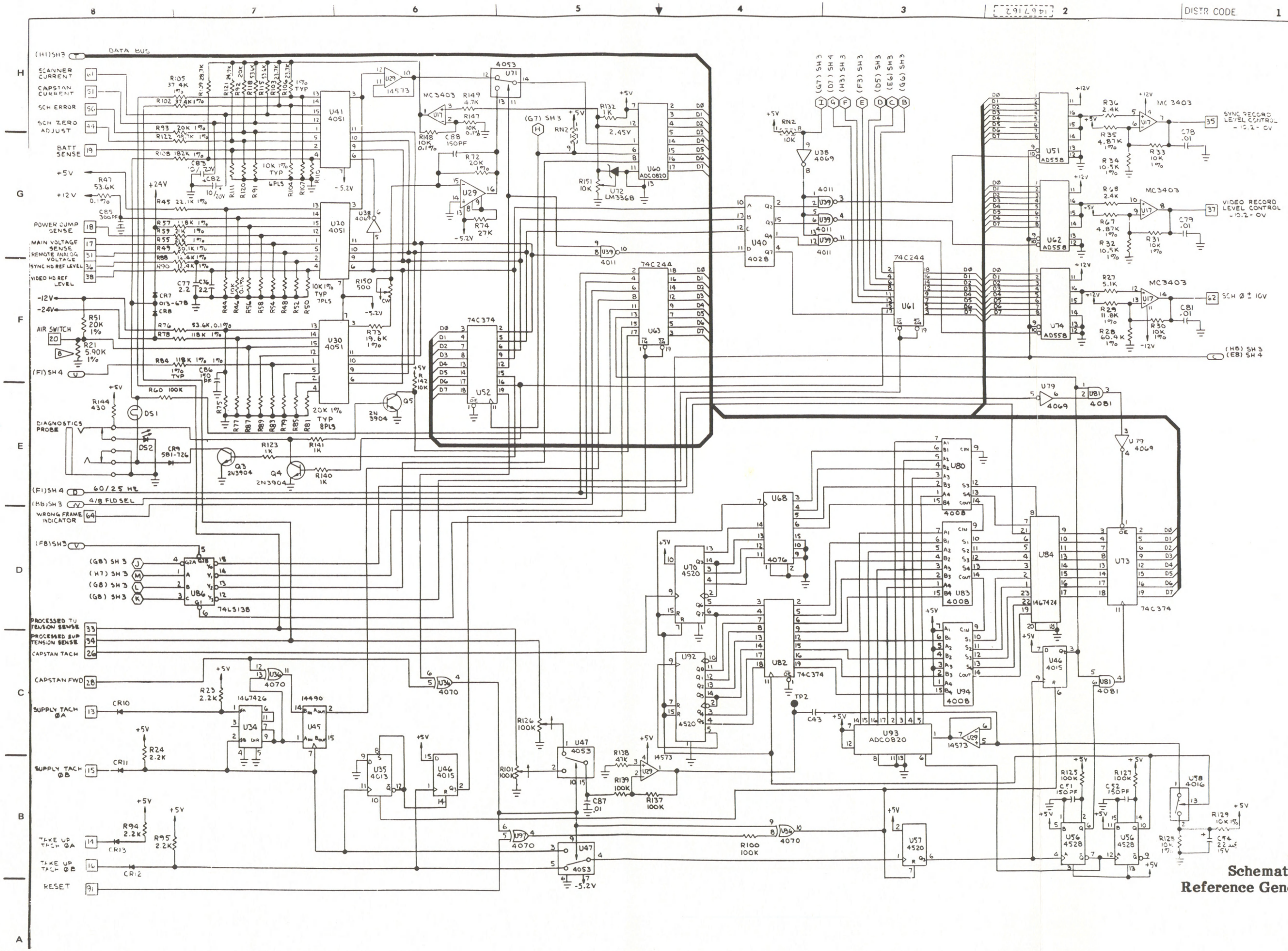
ITEM NO.	REF DES	AMPEX PN	VENDOR PN	VOLTAGE	GROUND
7 ▷	U46	590-480	4015	16	8
7 ▷	U47.71.78	590-450	4053	16	8
7 ▷	U50	1467425	—	40	20
	U51.62.74	001-021	AD558	—	—
7 ▷	U54	1467421	—	24	12
7 ▷	U56	590-513	4528	16	8
7 ▷	U57.70.92	590-570	4520	16	8
7 ▷	U60.93	003-197	ADC0820	20	10
7 ▷	U61.63	001-024	74C244	20	10
7 ▷	U65	1467420	—	24	12
7 ▷	U67	000-074	4041	14	7
7 ▷	U68	590-481	4076	16	8
	U72	001-961	LM336BZ	—	—
	U75	589-457	74LS245	20	10
7 ▷	U80.83.94	590-505	4008	16	8
7 ▷	U84	1467424	—	24	12
	U85,86	589-823	74LS138	16	8
	U89	589-825	74LS157	16	8
	U91	589-814	74LS04	14	7
7 ▷	U95	590-593	4071	14	7
	U96	589-821	74LS85	16	8

TABLE 1	
	Y1
525 (NTSC)	2.013986 MHZ
625 (PAL)	2.000000 MHZ

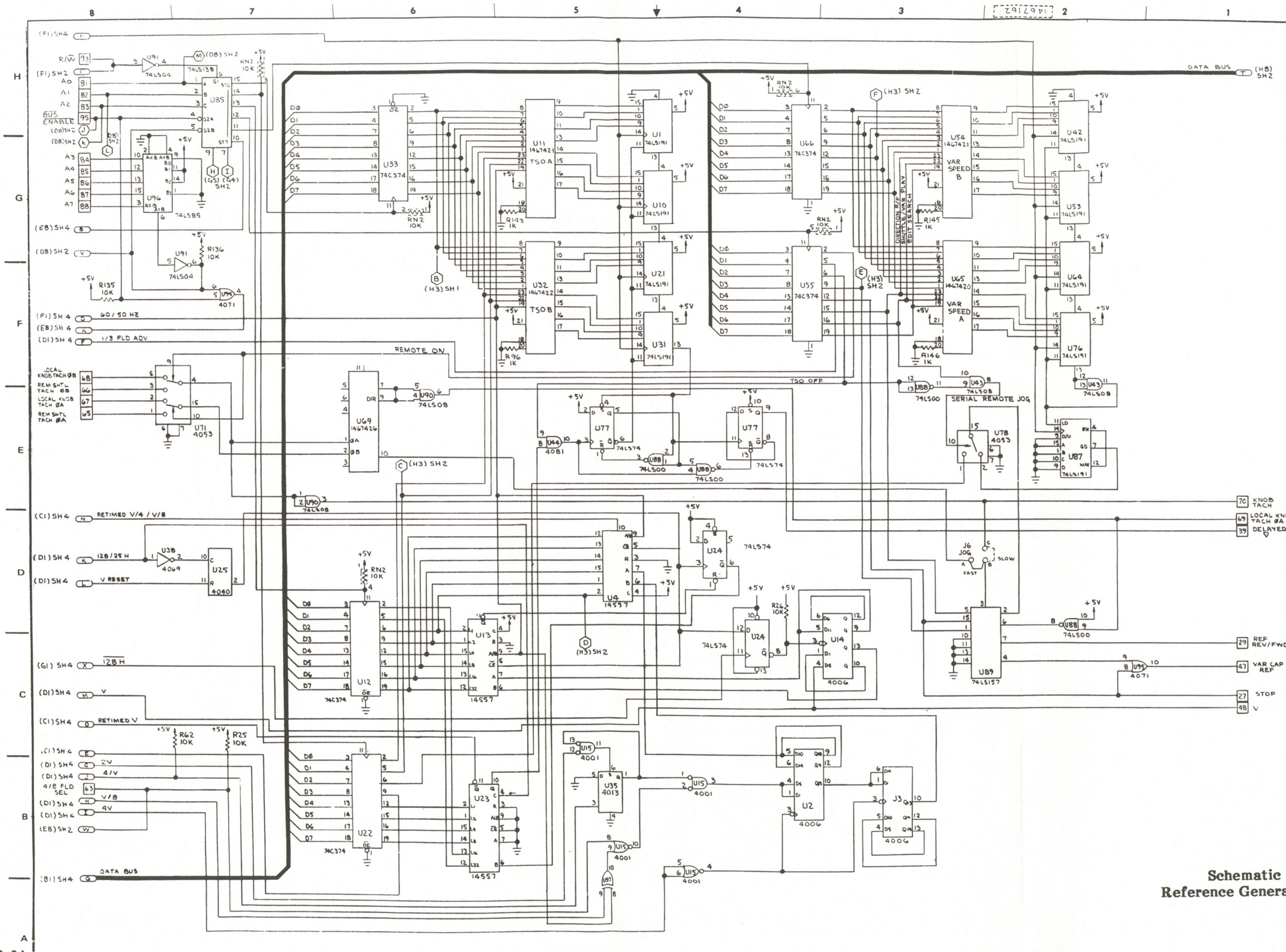


REFERENCE DESIGNATION	
LAST USED	NOT USED
C88	C20,57,58
CR13	
DS2	
FL4	
J6	
L3	
Q5	R53,61,80,
R152	82,86,112,113,114,
RN2	116,117,119,130,
TP2	131,133,134.
TPG	
U97	
Y1	

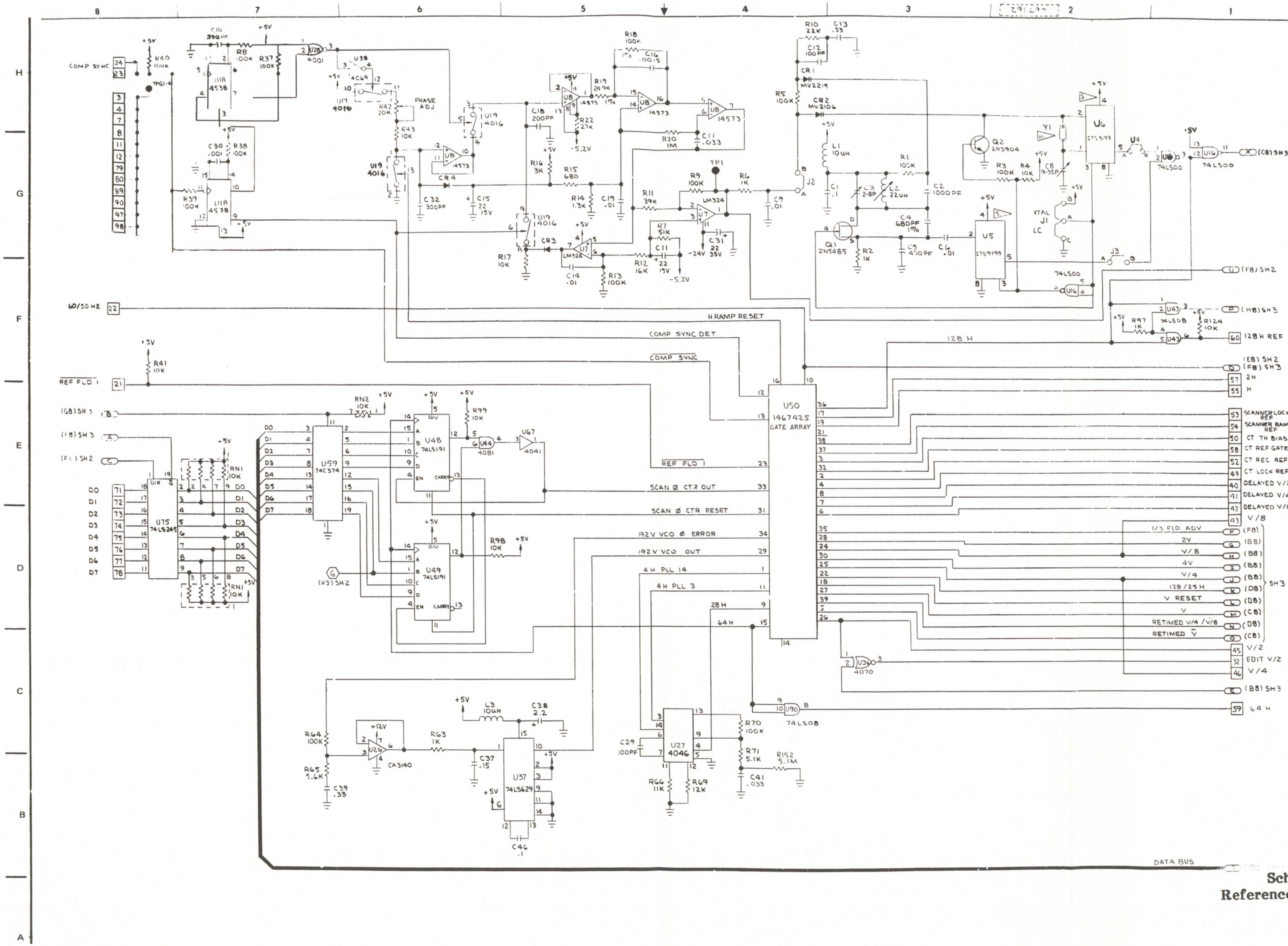
Schematic No. 1467162F.
Reference Generator PWA, A16
(Sheet 1 of 4)



Schematic No. 1467162F.
Reference Generator PWA, A16
(Sheet 2 of 4)



Schematic No. 1467162F.
Reference Generator PWA, A16
(Sheet 3 of 4)



Schematic No. 1467162F.
Reference Generator PWA, A16
(Sheet 4 of 4)

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02	-03	-04	-05	-06
1									
2									
3	1467162	SCHEMATIC		( )	(-)	(A)	(C)	D	E
4									
5	1400004-01	EJECTOR, PWB		1	1	1	1	1	1
6	1467008-AZ	LABEL, MODULE			1	1	1	1	1
7	1467009-01	SHIELD		1	1	1	1	1	1
8									
9	283-105	SPACER, PLAIN, .140 ID X .250 OD X .125 LG		1	1	1	1	1	1
10	471-063	SCREW, MACH, PAN HD, XREC DR, 4-40 X .438		1	1	1	1	1	1
11	474-500	SCREW, MACH, PAN HD, XREC DR, 4-40 X .312		7	7	7	7	7	7
12	502-002	WASHER, LOCK, #4		1	1	1	1	1	1
13	506-011	WASHER, BOWED		1	1	1	1	1	1
14									
15									
16									
17	1374388-AS	INDUCTOR, VARIABLE, 22uH	L2	1	1	1	1	1	1
18									
19									
20									
21	1467421-03	PROM, VARIABLE-A ▷1	U54			1	1	1	1
22	1467420-03	PROM, VARIABLE-B ▷1	U65			1	1	1	1
23	1467424-02	PROM, TAPE REMAINING ▷1	U84		1	1	1	1	1
24	1467421-02	PROM VARIABLE SPEED-A ▷1	U54		1	-	-	-	-
25	1467420-02	PROM VARIABLE SPEED-B ▷1	U65		1	-	-	-	-
26	1467420-01	PROM, VARIABLE SPEED-B ▷1	U32	1	-	-	-	-	-
27	1467421-01	VARIABLE SPEED-A	U11	1	-	-	-	-	-
28	1467422-01	TSO-B	U32	1	1	1	1	1	1
29	1467423-01	TSO-A	U11	1	1	1	1	1	1
30	1467424-01	PROM, TAPE REMAINING	U84	1	-	-	-	-	-
31	1467425-01	GATE ARRAY REF GEN ▷1	U50	1	1	1	1	1	1
32	1467426-01	GATE ARRAY, TACH PROCESSOR ▷1	U34,69	2	2	2	2	2	2
33									
34									
35	064-653	CAPACITOR CER. MONO, .1uF, 50V, 20%	C1,7,22-28,36,40,42, 44,45,46,48-50,53,55, 56,59-74,80,84	37	38	39	39	39	39
36									
37									

LM-1467163

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467163, SHEET 2	REV M

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
38									
39	064-655	CAPACITOR CER. MONO, 47pF, 100V, 5%	C35,57,58,62	4	4	-	-	-	-
40	064-668	300pF, 100V, 5%	C32,85	2	2	2	2	2	2
41									
42	064-670	150pF, 100V, 5%	C51,52,86,88	2	4	4	4	4	4
43	064-671	22pF, 100V, 5%	C2	1	-	-	-	-	-
44	064-693	390pF, 50V, 5%	C10	1	1	1	1	1	1
45									
46	064-694	200pF, 100V, 5%	C18	1	1	1	1	1	1
47	064-704	.001uF, 50V, 5%	C2,30	1	2	2	2	2	2
48									
49									
50	064-731	680pF, 50V, 1%	C4	1	1	1	1	1	1
51	064-754	.01uF, 50V, 5%	C6,9,14,19,78, 79,81,87	5	8	8	8	8	8
52	064-758	.033uF, 50V, 5%	C17,41	1	2	2	2	2	2
53									
54	064-762	100pF, 100V, 5%	C12,29	2	2	2	2	2	2
55	064-791	500pF, 50V, 5%	C43	1	1	1	1	1	1
56	064-133	.33uF, 100V, 20%	C13,39,47	3	3	3	3	3	3
57	064-316	2.2uF, 50V, 20%	C76,77		2	2	2	2	2
58	064-306	CAPACITOR, CER. MONO, .15uF, 100V, 20%	C37	1	1	1	1	1	1
59									
60									
61									
62									
63	064-927	CAPACITOR, CER. TEMP COMP, 470pF, 100V, 10%	C5	1	1	1	1	1	1
64									
65									
66									
67									
68	069-104	CAPACITOR, POLY, .0056uF, 50V, 5%	C16	1	-		-	-	-
69	069-111	CAPACITOR, POLY, .0015uF, 50V, 5%	C16		1	1	1	1	1
70									
71									
72	037-109	CAPACITOR, TANT., 10uF, 20V, 10%	C82,83		2	2	2	2	2
73	037-164	CAPACITOR, TANT, 1uF, 35V, 10%	C21	1	1	1	1	1	1
74	037-186	120uF, 10V, 10%	C75	1	1	1	1	1	1
75	037-367	2.2uF, 20V, 10%	C38	1	1	1	1	1	1
76									
77	037-736	22uF, 35V, 10%	C31	1	1	1	1	11	1
78	037-746	47uF, 20V, 10%	C33,34	2	2	2	2	2	2
79	037-991	CAPACITOR, TANT, 22uF, 15V, 10%	C11,15,54	3	3	3	3	3	3
80									
81									
82									

LM-1467163

AMPEX | Ampex Corporation REDWOOD CITY CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467163 SHEET 3	REV

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
83	038-249	CAPACITOR, VARIABLE, 2-8pF	C3	1	1	1	1	1	1
84									
85									
86	038-254	CAPACITOR, VARIABLE, 9-35pF	C8	1	1	1	1	1	1
87									
88									
89									
90									
91	01.-257	CRYSTAL, 2.000000MHZ	Y1	1	1	1	1	1	1
92									
93									
94									
95									
96	001-961	INTEGRATED CIRCUIT, 2.5V,SHUNT REG. LM336B22.5	U72	1	1	1	1	1	1
97									
98									
99	013-599	DIODE, SWITCHING	CR3-6,10-13	4	8	8	8	8	8
100	013-678	DIODE, CD451	CR7,8	2	2	2	2	2	2
101	581-726	DIODE, HOT CARRIER, MBR 130B	CR9		1	1	1	1	1
102	581-734	DIODE, VARACTOR, MV2106	CR2	2	1	1	1	1	1
103	581-913	DIODE, VARACTOR, MV2215	CR1		1	1	1	1	1
104									
105									
106									
107	051-770	INDUCTOR, FILTER	FL1-4	4	4	4	4	4	4
108									
109									
110									
111	540-057	INDUCTOR, FIXED, 10uH, 5%	L1,3	2	2	2	2	2	2
112									
113									
114									
115									
116									
117									
118									
119									
120									
121	000-080	INTEGRATED CIRCUIT, TTL, 74LS629	U37	1		1	1	1	1
122		↑							
123	589-814	74LS04	U91	1	1	1	1	1	1
124									
125	589-457	74LS245	U75	1	1		1	1	1
126	589-813	↓ 74LS00	U16,88	2	2	2	2	2	2
127	589-815	INTEGRATED CIRCUIT, TTL, 74LS08	U43,90	2	2	2	2	2	2

LM-1467163

AMPEX Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467163 SHEET 4	REV M

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
128	589-820	INTEGRATED CIRCUIT, TTL, 74LS74	U24,77	2	2	2	2	2	2
129	589-821	74LS85	U96	1	1	1	1	1	1
130	589-823	74LS138	U85,86	2	2	2	2	2	2
131									
132	589-825	74LS157	U89	1	1	1	1	1	1
133	589-951	INTEGRATED CIRCUIT, TTL, 74LS191	U1,10,21,31,42,48, 49,53,64,76,87	11	11	11	11	11	11
134									
135									
136									
137									
138									
139									
140									
141									
142									
143									
144									
145	000-036	INTEGRATED CIRCUIT, CMOS, 14573	▷1 U8,29	2	2	2	2	2	2
146	000-074	4041	U67	1	1	1	1	1	1
147	001-043	4011	U39	1	1		1	1	1
148	590-487	4028	U40	1	1		1	1	1
149	002-081	14490	U45	1	1		1	1	1
150									
151									
152	001-021	AD558	U51,62,74	3	3	3	3	3	3
153									
154									
155	587-428	4046	U27	1	1	1	1	1	1
156									
157									
158									
159	590-442	4016	U19,58	2	2	2	2	2	2
160									
161	590-450	4053	U47,71,78	3	3	3	3	3	3
162									
163	590-476	14557	U4,13,23	3	3	3	3	3	3
164	590-478	4040	U25	1	1	1	1	1	1
165	590-480	4015	U46	1	1	1	1	1	1
166	590-481	4076	U68		1	1	1	1	1
167	590-486	14538	U18	1	1	1	1	1	1
168	590-505	4008	U60,83,94	2	3	3	3	3	3
169	590-513	4528	U56	1	1	1	1	1	1
170									
171	590-528	4001	U15,28	2	2	2	2	2	2
172	590-546	INTEGRATED CIRCUIT, CMOS, 4013	▷1 U35	1	1	1	1	1	1

LM-1467163

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
173	590-555	INTEGRATED CIRCUIT, CMOS, 4006 ⟨1⟩	U2,3,14	3	3	3	3	3	3
174	590-556	4001	U44,81	2	2	2	2	2	2
175	590-570	14520	U57,70,92	3	3	3	3	3	3
176	590-507	4070	U36,97	1	2	2	2	2	2
177	590-592	4069	U38,79	2	2	2	2	2	2
178	590-593	4071	U95	1	1	1	1	1	1
179	590-724	4051	U20,30,41	3	3	3	3	3	3
180									
181									
182	590-773	74C374	U12,22,33,52,55, 59,66,73,82	9	9	9	9	9	9
183	001-024	74C244	U61,63	2	2	2	2	2	2
184	001-071	ICM7209	U5,6	2	2	2	2	2	2
185	003-137	INTEGRATED CIRCUIT, CMOS, ADC0820 ⟨1⟩	U60,93	2	2	2	2	2	2
186									
187	587-682	INTEGRATED CIRCUIT, LINEAR, MC3403	U17		1	1	1	1	1
188	590-447	INTEGRATED CIRCUIT, LINEAR, LM324	U7	2	1	1	1	1	1
189									
190									
191	590-561	INTEGRATED CIRCUIT, LINEAR, CA3140E	U26	1	1	1	1	1	1
192									
193									
194									
195									
196	587-779	INTEGRATED CIRCUIT, VOLT REG, LM320T-5.2	U9	1	1	1	1	1	1
197									
198									
199									
200									
201									
202	066-665	RESISTOR, C.F., 1K OHMS, .25W, 5%	R2,6,63,96,97,123,132, 140,141,143,145,146	5	12	12	12	12	12
203	066-667	3K	R16	1	1	1	1	1	1
204	066-673	1M	R20	2	1	1	1	1	1
205	066-717	47K	R138		1	1	1	1	1
206	066-712	22K	R10	1	1	1	1	1	1
207	066-718	5.6K	R65	1	1	1	1	1	1
208	066-626	2K	R132	1	-	-	-	-	-
209	066-928	2.4K	R36,68	2	2	2	2	2	2
210	066-830	10K	R4,17,25,26,41,43,62,98, 99,124,135,136,142	14	13	13	13	13	13
211									
212									
213	066-817	430	R144	1	1	1	1	1	1
214	066-831	11K	R66	1	1	1	1	1	1
215	066-840	680	R15	1	1	1	1	1	1
216	079-063	5.1M	R152				1	1	1
217	066-841	RESISTOR, C.F., 1.3K OHMS, .25W, 5%	R14	1	1		1	1	1

LM-1467163

AMPEX | Ampex Corporation REDWOOD CITY CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-147163 SHEET 6	M

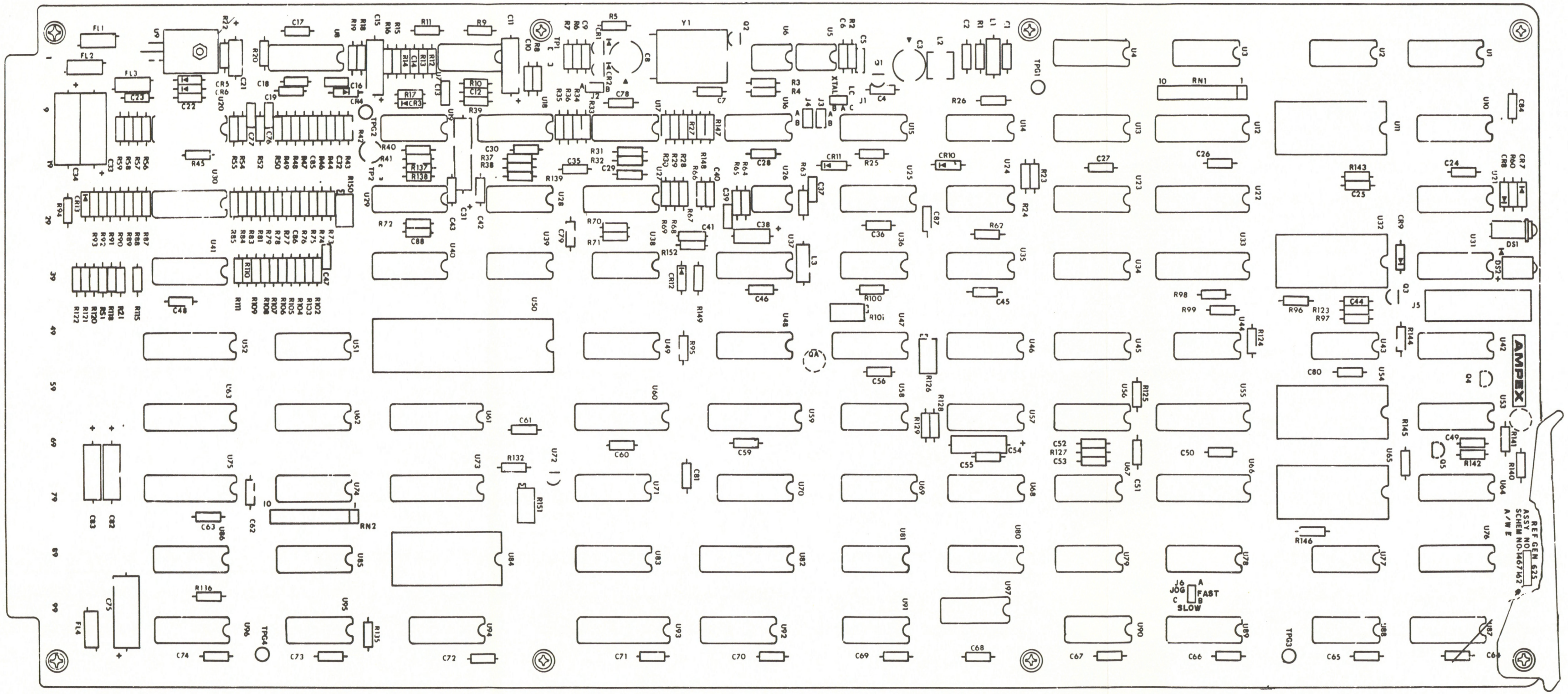
ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
218	066-842	RESISTOR, C.F., 5.1K OHMS, .25W, 5%	R27,71	2	3	3	2	2	2
219	066-844	16K	R12	1	1		1	1	1
220	066-849	100K	R1,3,5,8,9,13,37-40,60, 64,70,100,125,127,	20	22	19	18	18	18
221			137,139						
222	066-668	4.7K	R149		1		1	1	1
223									
224	066-853	200K	R131	1	1	-	-	-	-
225	066-860	39K	R11	1	1	1	1	1	1
226	066-865	12K	R69	1	1	1	1	1	1
227	066-866	27K	R22,74	2	2	2	2	2	2
228									
229	066-867	RESISTOR, C.F., 51K OHMS, .25W, 5%	R7	1	1	1	1	1	1
230	066-689	RESISTOR, C.F., 2.2K OHMS, .25W, 5%	R23,24,94, 95	4	4	4	4	4	4
231	076-134	RESISTOR, M.F., 48.7K OHMS, .25W, 1%	R122		1	1	1	1	1
232	066-442	RESISTOR, M.F., 10.5K OHMS, .25W, 1%	R32,34		2	2	2	2	2
233	062-967	RESISTOR, M.F., 4.87K OHMS, .25W, 1%	R35,67		2	2	2	2	2
234	066-386	RESISTOR, M.F., 6.65K OHMS, .25W, 1%	R32,34,35, 67	4	-	-	-	-	-
235	042-332	RESISTOR, M.F., 24.9K OHMS, .25W, 1%	R19,121	1	2	2	2	2	2
236	062-559	21K	R55,59		2	2	2	2	2
237	062-693	20K	R72,75,77,79,81,83, 85,87,89,92,93,51	10	11	11	11	11	12
238	042-379	5.90K	R21						1
239	066-010	37.4K	R102,105		2	2	2	2	2
240	062-561	61.9K	R122	1	-	-	-	-	-
241	062-601	100K	R18	1	1	1	1	1	1
242	062-983	10.0K	R30,31,33,44,48,50, 52,54,56,58,91,104,	31	18	18	18	18	18
243			107,110,111,120,128, 129						
244									
245	066-003	23.7K	R103,106		2	2	3	2	2
246	066-803	182K	R108		1	1	1		1
247	062-986	12.1K	R29	1	1	1	-	-	-
248	066-183	60.4K	R28	1	1	1	1	1	1
249	066-181	28.7K	R109		1	1	1	1	1
250	066-710	19.6K	R73	1	1	1	1	1	1
251	066-925	22.1K	R45	1	1	1	1	1	1
252	066-387	53.6K	R115,118	2	2	2	2	2	2
253	066-656	30.1K	R49	1	1	1	1	1	1
254	066-019	118K	R57,78,84	2	3	3	3	3	3
255	076-349	95.3K	R84	1	-	-	-	-	-
256	066-657	RESISTOR, M.F., 38.3K OHMS, .25W, 1%	R88,90	2	-	-	-	-	-
257	039-323	RESISTOR, NETWORK, 10K	RN1,2	2	2	2	2	2	2
258	079-390	RESISTOR, M.F., 9.53K OHMS, .1W, 0.1%	R147		1	1	-	-	-
259	079-388	RESISTOR, M.F., 53.6K OHMS, .1W, 0.1%	R47,76		2	2	2	2	2
260	076-938	RESISTOR, M.F., 10K OHMS, .1W, 0.1%	R46,147,148		2	2	3	3	3
261	062-562	RESISTOR, M.F., 12.4K OHMS, .25W, 1%	R88,90		2	2	2	2	2
262	066-752	RESISTOR, M.F., 11.8K OHMS, .1W, 0.1%	R29				1	1	1

LM-1467163

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467163	M

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06
263	058-001	RESISTOR, VARIABLE, 50K	R42	1	-	-	-	-	-
264	058-610	RESISTOR, VARIABLE, 20K OHMS, IT	R42			1	1	1	1
265	075-079	RESISTOR, VAR., 500 OHMS, 20T	R150			1	1	1	1
266	058-251	RESISTOR, VARIABLE, 100K	R101,126	2	-	-	-	-	-
267	075-087	RESISTOR, VARIABLE, 100K OHMS, 20T	R101,126		2	2	2	2	2
268	075-083	RESISTOR, VARIABLE, 10K OHMS, 20T	R151		1	1	1	1	1
269									
270	014-445	TRANSISTOR, FET, 2N5485	Q1		1	1	1	1	1
271	580-319	TRANSISTOR, FET, 2N5555	Q1	1	-	-	-	-	-
272	580-647	TRANSISTOR, NPN, 2N3904	Q2-5	2	4	4	4	4	4
273									
274									
275									
276	140-437	JACK, SHORTING	J1-4,6	4	5	5	5	5	5
277									
278	187-259	TERMINAL, PC, TEST POINT	TP1,2	1	2	2	2	2	2
279									
280	140-767	CONNECTOR, SIG CKT, JACK, TELEPHONE	J5	1	1	1	1	1	1
281	177-203	CONNECTOR PART, JACK COVER	REF:J5				1	1	1
282	187-055	PIN, CONTACT	J1-A,B,C,J2-A,B, J3-A,B,J4-A,B,J6-A,B,C	9	12	12	12	12	12
283	581-869	LED, RT ANGLE, YELLOW	DS2		1	1	1	1	1
284	581-835	LED, RT ANGLE, RED	DS2	1	-	-	-	-	-
285	060-537	LAMP, INCADESCENT, 14V	DS1	1	1	1	1	1	1
286	132-443	LIGHT PART, HOLDER	DS1	1	1	1	1	1	1
287									
288									
289									
290									
291									
292	473-600	SCREW, MACH, 4-40 X .312 LG, NYLON		1	1	1	1	1	1
293									
294									
295	498-426	NUT, HEX, 4-40, NYLON		1	1	1	1	1	1
296									
297									
298									
299									
300	582-331	SOCKET, IC, 16 POS	U34,69	2	2	2	2	2	2
301	582-148	SOCKET, IC, 24 POS	U11,32,54 65,84	5	5	5	5	5	5
302	582-149	SOCKET, IC, 40 POS	U50	1		1	1	1	1
303									
304									
305		NOTE:							
306		1 ▷ STATIC SENSITIVE, SPECIAL HANDLING REQUIRED PER AMPEX STD HEI-1.							
307									

LM-1467163



Assembly No. 1467163-06M.
Reference Generator PWA, A16,
PAL/SECAM (Late)

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07	-08	-09	-10
				QTY REQD PER DASH NUMBER									
1													
2													
3	1467182	SCHEMATIC		(-)	(-)	B	C	D	E	F	G	H	J
4													
5	1400004-01	EJECTOR, PWB		1	1	1	1	1	1	1	1	1	1
6	1467006-BB	LABEL		1	1	1	1	1	1	1	1	1	1
7	1467009-01	SHIELD		1	1	1	1	1	1	1	1	1	1
8													
9	283-105	SPACER, PLAIN, .140 ID X .250 OD X .125 LG		1	1		1	1	1	1	1	1	1
10	471-063	SCREW, MACH., PAN HD., XREC, 4-40 X .438		1	1		1	1	1	1	1	1	1
11	474-500	SCREW, MACH., PAN HD., XREC 4-40 X .312		7	7	7	7	7	7	7	7	7	7
12	502-002	WASHER, LOCK #4		1	1	1	1	1	1	1	1	1	1
13	506-011	WASHER, BOWED		1	1		1	1	1	1	1	1	1
14	173-620	TERMINAL, STUD, TURRET,	TPG1-4										4
15	1374388-AM	INDUCTOR, VAR., 10uH	L1	1	1		1	1	1	1	1	1	1
16													
17													
18	1467455	PROM, TC READER, FONT △1	U24	1	1	1	1	1	-03	-02	-	-	-
19	1467457	PROM, TC READER, PROGRAM △1	U47	1	1	1	1	-01	-02	-03	-	-	-
20	1467455-03	PROM, TC READER, FONT △1	U24								1	1	1
21	1467457-04	PROM, TC READER, PROGRAM △1	U47								1	-	-
22	1467457-06	PROM, TC READER, PROGRAM △1	U47									1	1
23	1467711	GATE ARRAY, LONG, TC READER △1	U41	1	1	1	1	1	-01	-01	-	-	-
24	1467711-01	GATE ARRAY, LONG, TC READER △1	U41								1	1	1
25													
26	064-653	CAPACITOR, CER., MONO., .1uF, 50V, 20%	C9,10,13-16,26, 28-30,32,35-45,						-	55	55	55	55
27			47-51,53,56,58-60, 62-70,75-88										
28	064-653	CAPACITOR, CER, MONO, .1uF, 50V, 20%	C9,10,13-16, 26,28-30,32,35-	41	54	54	54	54	54	-	-	-	-
29			45,47-51,53,56,58-60, 62-70,75-87										
30	064-831	1000pF, 100V, 5%	C7,74	2	2	2	2	2	2	2	2	2	2
31	064-754	.01uF, 50V, 5%	C21	1	1	1	1	1	1	1	1	1	1
32	064-666	75pF, 100V, 5%	C52,57	2	2	2	2	2	2	2	2	2	2
33	064-671	22pF, 100V, 5%	C22,31,33,34	4	4	4	4	-	-	-	-	-	-
34	064-693	390pF, 50V, 5%	C5	1	1	-	-	-	-	-	-	-	-
35	064-762	100pF, 100V, 5%	C61	1	1	-	-	-	-	-	-	-	-
36	064-694	200pF, 100V, 5%	C4,6	2	2	-	-	-	-	-	-	-	-
37	064-705	CAPACITOR, CER, MONO, .0022uF, 100V, 5%	C3	1	1	1	1	1	1	1	1	1	1

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ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07	-08	-09	-10
38	064-708	CAPACITOR, CER, MONO, 33pF, 100V, 5%	C54	1	1	1	1	1	1	1	1	1	1
39	064-709	CAPACITOR, CER, MONO, 120pF, 100V, 5%	C19	1	1	1	1	1	1	1	1	1	1
40	064-713	CAPACITOR, CER, MONO, 36pF, 100V, 5%	C20	1	1	1	1	1	1	1	1	1	1
41	064-721	CAPACITOR, CER, MONO, 130pF, 100V, 5%	C17	1	1	1	1	1	1	1	1	1	1
42	064-756	CAPACITOR, CER, MONO, .022uF, 50V, 5%	C8,11	2	2	2	2	2	2	2	2	2	2
43	064-767	CAPACITOR, CER, MONO, .0047uF, 50V, 5%	C2	1	1	1	1	1	1	1	1	1	1
44	064-768	CAPACITOR, CER, MONO, .0033uF, 50V, 5%	C27,55	2	2	2	2	2	2	2	2	2	2
45	064-769	CAPACITOR, CER, MONO, .0018uF, 100V, 5%	C1	1	1	1	1	1	1	1	1	1	1
46	064-764	CAPACITOR, CER, MONO, 470pF, 50V, 5%	C73	1	1	1	1	1	1	1	1	1	1
47	064-314	CAPACITOR, CER, MONO, 1uF, 50V, 20%	C18,72	2	-	-	-	-	-	-	-	-	-
48	064-316	CAPACITOR, CER, MONO, 2.2uF, 50V, 20%	C12	1	1	1	1	1	1	1	1	1	1
49	037-380	CAPACITOR, NP, 400uF, 6V, $^{-15}_{+75}$%	C23	1	1	1	1	1	1	1	1	1	1
50	064-694	CAPACITOR, CER., MONO, 200pF, 100V, 5%	C6		-	1	1	1	1	1	1	1	1
51	064-693	CAPACITOR, CER., MONO, 390pF, 50V, 5%	C4,5		-	2	2	2	2	2	2	2	2
52	064-780	CAPACITOR, CER., MONO, 43pF, 50V, ±.5pF	C22,31,33, 34				-	4	4	4	4	4	4
53													
54													
55	037-186	CAPACITOR, TANT, 120uF, 10V, 10%	C71	1	1	1	1	1	1	1	1	1	1
56													
57													
58	037-746	CAPACITOR, TANT, 47uF, 20V, 10%	C24,25	2	2	2	2	2	2	2	2	2	2
59	037-955	CAPACITOR, TANT, 27uF, 15V, 20%	C18,72	-	2	2	2	2	2	2	2	2	2
60													
61													
62													
63	013-599	DIODE, SWITCHING	CR1,2,3	3	3	3	3	3	3	3	3	3	3
64													
65													
66													
67	581-834	LED, RT ANGLE, GREEN	DS1	1	1	1	1	1	1	1	1	1	1
68													
69													
70													
71													
72	051-770	FERRITE - CHOKE	FL1,2,3	3	3	3	3	3	3	3	3	3	3
73													
74													
75	068-064	INDUCTOR, FIXED, 300uH, 5%	L2	1	1	1	-	-	-	-	-	-	-
76	540-030	INDUCTOR, FIXED, 330uH, 5%	L2			-	1	1	1	1	1	1	1
77													
78													
79	541-069	INDUCTOR, VARIABLE, 4.7uH, 5%	L3	1	1	1	1	1	1	1	1	1	1
80													
81	595-022	XTAL, 8MHZ, ±1%, K1160AA, $^{8MHz}_{4MHz}$	U40	1	1	1	1	1	1	1	1	1	1
82													

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AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467180 SHEET 3	REV L

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07	-08	-09	-10
				QTY REQD PER DASH NUMBER									
83	000-037	INTEGRATED CIRCUIT, 74C193 [1]	U70	1	1	1	1	1	1	1	1	1	1
84	000-026	74LS541 [1]	U63	1	1	1	1	1	1	1	1	1	1
85													
86													
87													
88	001-024	74C244 [1]	U28,50	2	2	2	2	2	2	2	2	2	2
89													
90	001-894	Z80A-CPU-CS [1]	U37	1	1	1	1	1	1	1	1	1	1
91													
92	022-943	Z8536-C10-CS	U53	1	-	-	-	-	-	-	-	-	-
93	002-943	Z8536-C10-CS [1]	U53	-	1	1	1	1	1	1	1	1	1
94													
95	590-847	74LS245 [1]	U59	-	1	1	1	1	1	1	1	1	1
96	589-457	74LS245	U59	1	-	-	-	-	-	-	-	-	-
97	589-813	74LS00	U2,30	2	2	2	2	2	2	2	2	2	2
98	589-814	74LS04	U48,67,74,77	4	4	4	4	4	4	4	4	4	4
99	589-815	74LS08	U27	1	1	1	1	1	1	1	1	1	1
100	589-816	74LS10	U21	1	1	1	1	1	1	1	1	1	1
101	589-817	74LS11	U61	1	1	1	1	1	1	1	1	1	1
102	589-818	74LS20	U14	1	1	1	1	1	1	1	1	1	1
103													
104	589-820	74LS74	U20,31	2	2	2	2	2	2	2	2	2	2
105	589-821	74LS85	U75	1	1	1	1	1	1	1	1	1	1
106	589-823	74LS138	U66,73	2	2	2	2	2	2	2	2	2	2
107													
108	589-827	74LS164	U60	1	1	1	1	1	1	1	1	1	1
109	589-931	74LS30	U33	1	1	1	1	1	1	1	1	1	1
110	589-933	74LS161	U16,22,23,52	4	4	4	4	4	4	4	4	4	4
111													
112	589-934	74LS221	U1,12	2	2	2	2	2	2	2	2	2	2
113	002-953	74LS224	U18,25,26,36,46	5	5	5	5	5	5	5	5	5	5
114													
115	589-935	74LS393	U62,76	1	2	2	2	2	2	2	2	2	2
116	589-828	74LS166	U17	1	1	1	1	1	1	1	1	1	1
117													
118													
119													
120													
121	590-328	74LS32	U[illegible],57,65	3	3	3	3	3	3	3	3	3	3
122													
123													
124	590-335	74LS273	U55,71	2	2	2	2	2	2	2	2	2	2
125	590-442	CD4016 [1]	U10,11	2	2	2	2	2	2	2	2	2	2
126	590-295	INTEGRATED CIRCUIT, 14504	U9	1	1	1	1	1	1	1	1	1	1
127													

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AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467180 SHEET 4

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07	-08	-09
128	590-450	INTEGRATED CIRCUIT, CD4053 ▷1	U68	1	1	1	1		1	1	1	
129	590-473	CD40105	U29,38,39, 42,44,49	6	6	6	6	6	6	6	6	6
130	590-486	MC14538	U54	1	1	1	1		1	1	1	
131												
132	590-513	14528	U58	1	1	1	1	1	1	1	1	1
133	590-556	CD4081	U8	1	1	1	1	1	1	1	1	1
134	590-572	74C221 ▷1	U3	1	1	1	1	1	1	1	1	1
135												
136												
137												
138	590-615	74LS139	U64	1	1	1	1	1	1	1	1	1
139												
140	590-620	74LS86	U13	1	1	1	1	1	1	1	1	1
141	002-945	74LS107	U15,51	2	2	2	2	2	2	2	2	2
142	590-771	74C151 ▷1	U32	1	1	1	1	1	1	1	1	1
143												
144	590-772	74C157	U43	1	1	1	1	1	1	1	1	1
145	589-370	74LS165	U69	1	1	1	1	1	1	1	1	1
146	590-925	INTEGRATED CIRCUIT, 74LS365	U35,45	2	2	2	2	2	2	2	2	2
147												
148												
149												
150												
151	000-146	INTEGRATED CIRCUIT, LINEAR, NE529	U4	1	1	1	1	1	1	1	1	1
152												
153												
154												
155	589-592	DG301	U5	1	1	1	1	1	1	1	1	1
156												
157												
158	590-542	LM311	U78	1	1	1	1	1	1	1	1	1
159	590-448	LM310	U7	1	1	1	1	1	1	1	1	1
160	590-601	INTEGRATED CIRCUIT, LINEAR, LF356	U6	1	1	1	1	1	1	1	1	1
161												
162												
163												
164												
165	001-908	INTEGRATED CIRCUIT, RAM, TC5517AP	U56	1	1	1	1	1	1	1	1	1
166												
167												
168												
169	590-346	INTEGRATED CIRCUIT, RAM, MK4118AN-1	U34,72	2	2	2	2	2	2	2	2	2
170												
171												
172												

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467180 SHEET 5	REV L

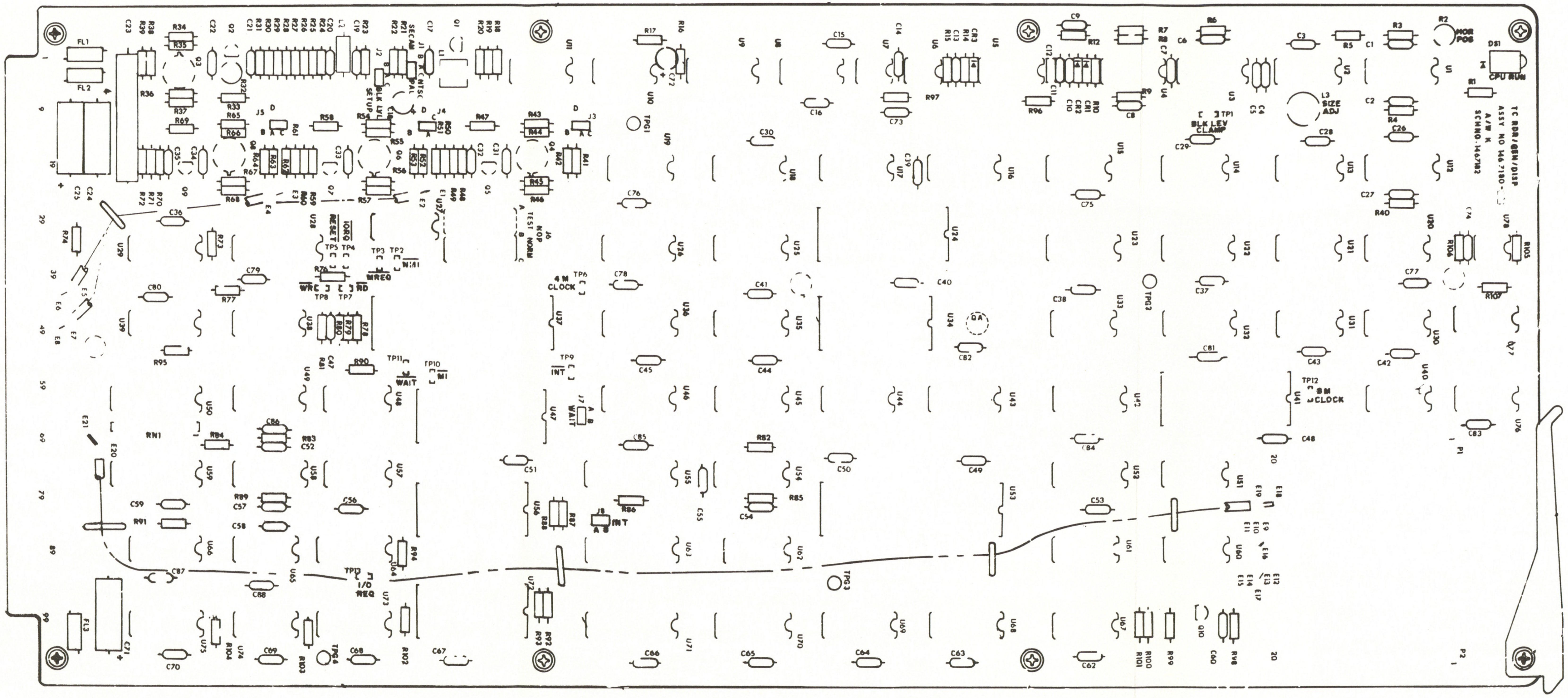
ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07	-08	-09	-10
173	066-665	RESISTOR, C.F., 1K OHMS, .25W, 5%	R15,21,28,50,61, 72,99	7	-	-	-	-	-	-	-	-	-
174	066-665	1K	R15,21,28,50,61, 72,99,107	-	8	8	8	8	8	8	8	8	8
175													
176	066-673	1M	R12	1	1	1	1	1	1	1	1	1	1
177													
178	066-711	7.5K	R8	1	1	1	1	1	1	1	1	1	1
179	066-717	47K	R14	1	1	1	1	1	1	1	1	1	1
180	066-720	3.3K	R3	1	1	1	1	1	1	1	1	1	1
181													
182	066-810	10	R36,44,55,66	4	4	4	4	4	4	4	4	4	4
183	066-817	430	R1,9	2	2	2	2	2	2	2	2	2	2
184	066-818	470	R5	1	1	1	1	1	1	1	1	1	1
185	066-812	100	R97	1	1	1	1	1	1	1	1	1	1
186													
187													
188	066-826	2K	R24	1	1	1	1	1	1	1	1	1	1
189	066-689	2.2K	R105	1	1	1	1	1	1	1	1	1	1
190	066-829	6.8K	R40	1	1	1	1	1	1	1	1	1	1
191	066-830	10K	R6,19,39,73,76-81,84, 86-88,90-95,102-104	22	22	22	22	23	23	23	23	23	23
192													
193	076-039	20	R100,101	2	2	2	2	2	2	2	2	2	2
194													
195													
196													
197	066-836	91	R38	1	1	1	1	1	1	1	1	1	1
198	066-837	130	R31	1	1	1	1	-	-	-	-	-	-
199	066-847	33K	R10	1	1	1	1	1	1	1	1	1	1
200													
201													
202	066-856	15K	R4,82	2	2	2	2	2	2	2	2	2	2
203	066-867	51K	R85	1	1	1	1	1	1	1	1	1	1
204	066-868	120K	R22	1	-	-	-	-	-	-	-	-	-
205	066-849	100K	R106	1	-	-	-	-	-	-	-	-	-
206	066-913	220K	R41,52,63	3	3	3	3	3	3	3	3	3	3
207	066-938	47	R23,42,49,53,60,64, 71,96	8	8	8	8	8	8	8	8	8	8
208	066-849	100K	R22,106	-	2	2	2	2	2	2	2	2	2
209	066-662	200	R18,98	2	2	2	2	2	2	2	2	2	2
210													
211	076-004	180	R7	1	1	1	1	1	1	1	1	1	1
212	076-045	75	R25-27,34,46,57, 68	7	7	7	7	7	7	7	7	7	7
213	066-855	39	R48,59,70				-	3	3	3	3	3	3
214	066-842	5.1K	R83,89	2	2	2	2	2	2	2	2	2	2
215	076-004	180	R31				-	1	1	1	1	1	1
216	076-027	RESISTOR, C.F., 4.3 OHMS, .25W, 5%	R48,59,70	3	3	3	3	-	-	-	-	-	-
217													

LM-1467180

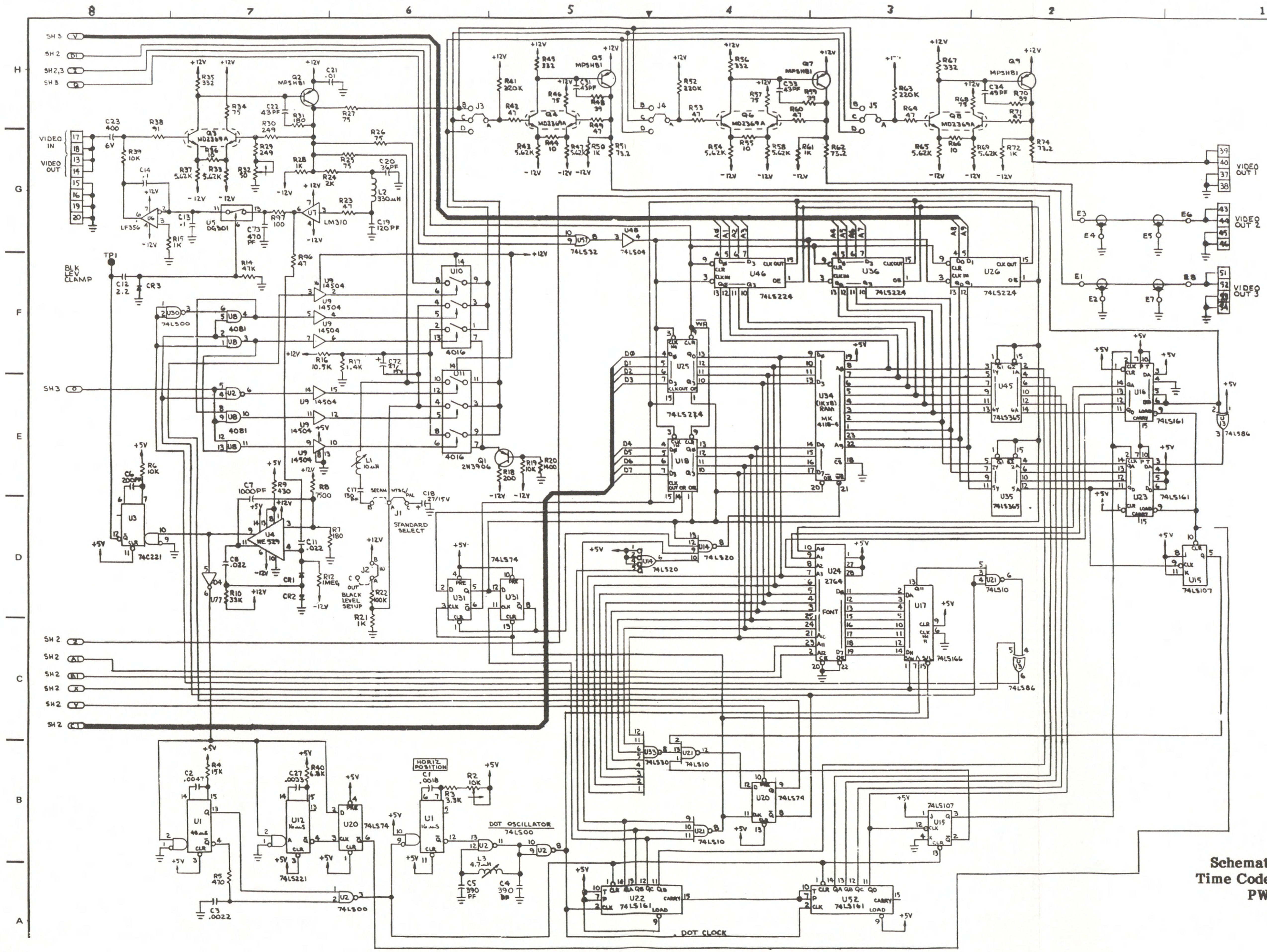
AMPEX	Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467180 SHEET 6	REV L.

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04	-05	-06	-07	-08	-09	-10
218	062-626	RESISTOR, M.F., 1.40K OHMS, .25W, 1%	R17,20	2	2	2	2	2	2	2	2	2	2
219	062-834	73.2	R51,62,74	3	3	3	3	3	3	3	3	3	3
220	062-880	249	R29,30	2	2	2	2	2	2	2	2	2	2
221													
222	062-887	332	R35,45,56,67	4	4	4	4	4	4	4	4	4	4
223	062-972	5.62K	R33,37,43,47,54, 58,65,69	8	8	8	8	8	8	8	8	8	8
224													
225													
226													
227	066-442	RESISTOR, M.F., 10.5K OHMS, .25W, 1%	R16	1	1	1	1	1	1	1	1	1	1
228													
229													
230													
231	039-323	RESISTOR, NETWORK, 10K OHMS	RN1	1	1	1	1	1	1	1	1	1	1
232	058-611	RESISTOR, VARIABLE, 10K OHMS, .5W, 20%	R2	1	1	1	1	1	1	1	1	1	1
233	044-940	RESISTOR, VARIABLE, 50 OHMS, .5W, 10%	R32	1	1	1	1	1	1	1	1	1	1
234													
235	302-542	STRAP, CABLE, MOUSETAIL		[illegible]	5	5	5	5	5	5	5	5	5
236													
237													
238	014-852	TRANSISTOR, NPN, MD2369A	Q3,4,6,8	4	4	4	4	4	4	4	4	4	4
239													
240	014-652	2N3906	Q1,10	2	2	2	2	2	2	2	2	2	2
241													
242	580-840	TRANSISTOR, PNP, MPSH81	Q2,5,7,9	4	4	4	4	4	4	4	4	4	4
243	187-254	TERMINAL WIREWRAP	REF:J1-5,7,8	21	21	22	22	22	22	22	22	22	22
244	187-259	TERMINAL P.C., TEST POINT	TP1-13	[illegible]	[illegible]	13	13	13	13	13	13	13	13
245													
246													
247	090-245	JUMPER, TEST	REF:J6	1	[illegible]	1	1	1	1	1	1	1	1
248	140-437	CONN. SIG. CIR. PLUG	REF:J1-5,7,8	6	6	7	7	7	7	7	7	7	7
249													
250	155-005	SOCKET, 8 POS	REF:J6	3	3	3	3	3	3	3	3	3	3
251	139-934	RECEPTACLE, PWB, MOUNT	P1,2	2	2	2	2	2	2	2	2	2	2
252	582-414	I.C., MTG HDW., SOCKET, 28 POS	U24,47	2	2	2	2	2	2	2	2	2	2
253	582-134	16 POS	U18,25,26,36,46			[illegible]	5	5	5	5	5	[illegible]	5
254	582-149	40 POS	REF:U37,53	2	2	2	2	2	2	2	2	2	2
255	582-159	24 POS	REF:U34,56,72	3	3	3	3	[illegible]	3	3	3	3	3
256	582-281	I.C., MTG. HDW., SOCKET, 28 POS	REF:U41	1	1	1	1	1	1	1	1	1	1
257	582-417	INSULATOR, STRIP, XTAL	REF:U40	2	2	2	2	2	2	2	2	2	2
258	616-569	CABLE, COAX, SINGLE CIR., 75 OHMS		A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R
259	61[illegible] 004	WIRE, BARE, 24 AWG		A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R
260		NOTES:											
261		▷1 STATIC SENSITIVE, SPECIAL HANDLING REQUIRED PER AMPEX STD HE1-1.											
262													

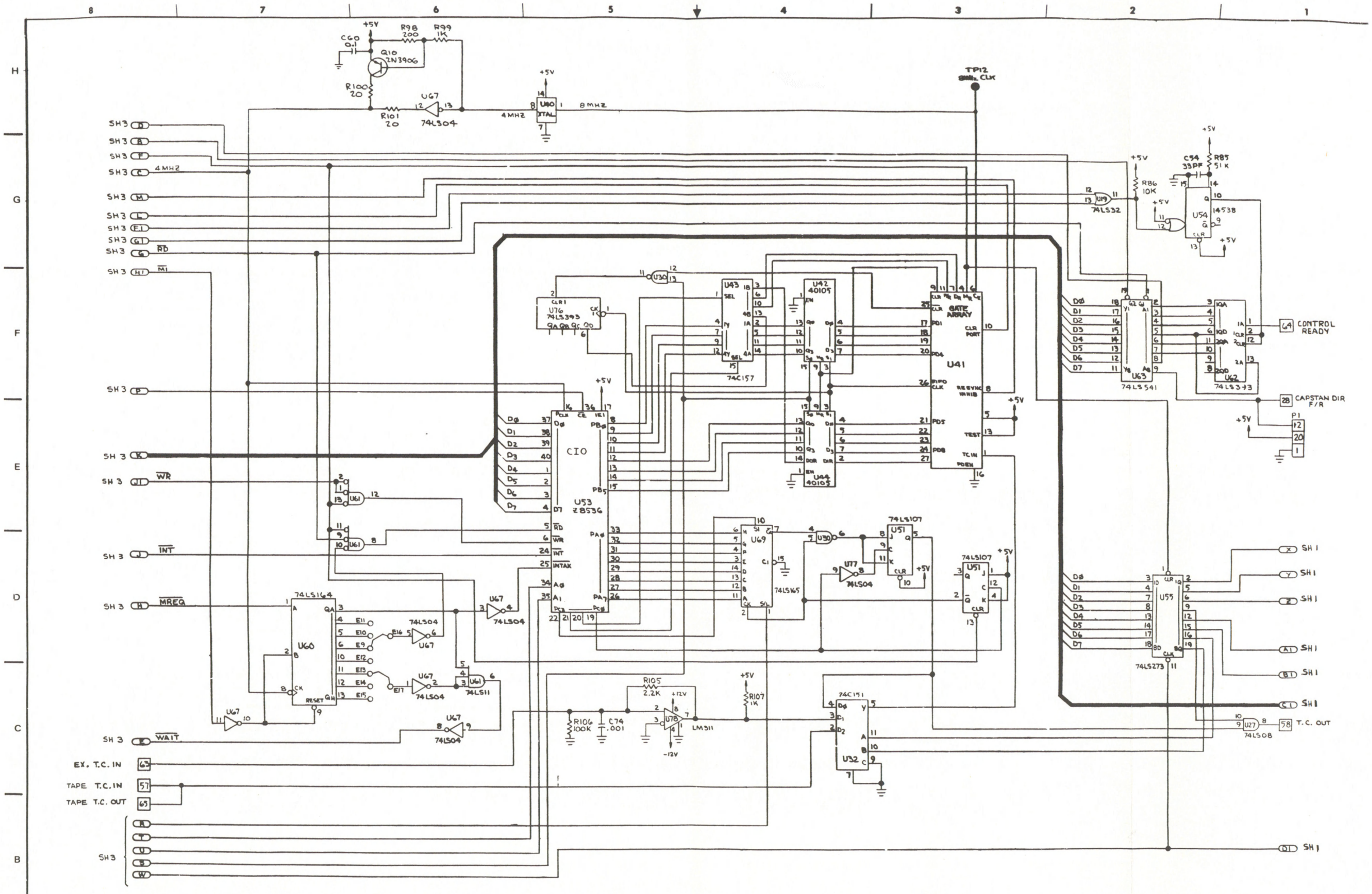
LM-1467180



Assembly No. 1467180-10L.
Time Code Reader/Generator PWA, A18 (Accessory)



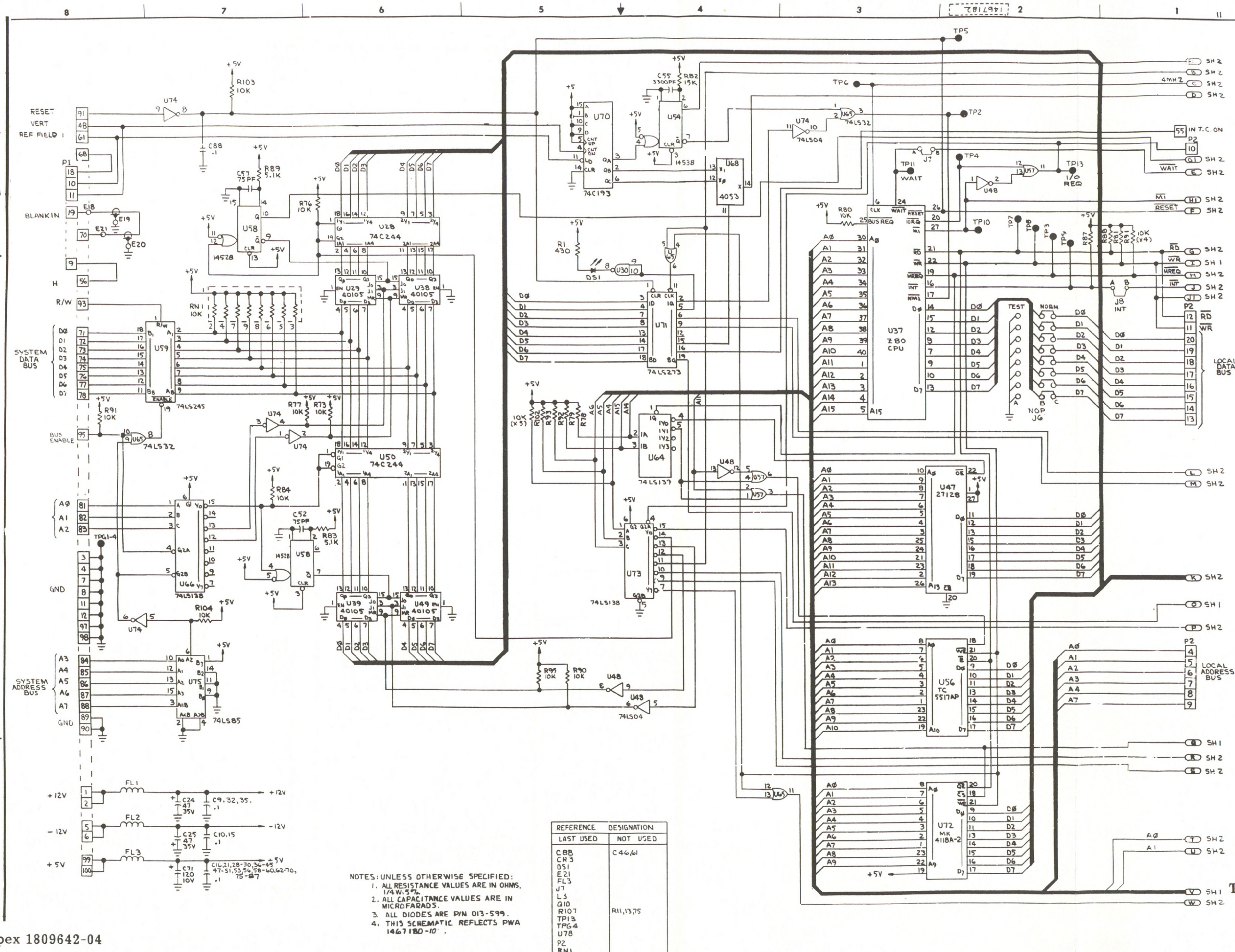
Schematic No. 1467182H/J.
Time Code Reader/Generator
PWA, A18 (Accessory)
(Sheet 1 of 3)



REF DES	U33	U34.72	U35.45	U37	U43	U48.67.74.77	U53	U54	U55.71	U56	U58	U59	U60	U61	U62.76	U63	U64	U66.73	U68	U69	U70	U75	U47	U24	U78
AMPEX P/N	589-931	590-346	590-925	001-894	590-772	589-814	002-943	590-486	590-335	001-908	590-513	590-847	589-827	589-817	589-935	000-026	590-615	589-823	590-450	589-370	000-037	589-821	1467457	1467455	590-542
VENDOR P/N	74LS30	MK4118AN-1	74LS365	Z80ACPU-CS	74C157	74LS04	Z8536-CIO-CS	MC14538	74LS273	TC 5517 AP	14528	74LS245	74LS164	74LS11	74LS393	74LS541	74LS139	74LS138	CD4053	74LS165	74C193	74LS85	EPROM	EPROM	LM311
VOLTAGE	+5V (14)	+5V (24)	+5V (16)	+5V (11)	+5V (16)	+5V (14)	+5V (23)	+5V (16)	+5V (20)	+5V (24)	+5V (16)	+5V (20)	+5V (14)	+5V (14)	+5V (14)	+5V (20)	+5V (16)	+5V (16)	+5V (16)	+5V (16)	+5V (16)	+5V (16)	+5V (28)	+5V (28)	+12V (8)
GROUND	7	12	8	29	8	7	7	8	10	12	8	10	7	7	7	10	8	8	8	8	8	8	14	14	-12V (4)

REF DES	U1.12	U2.30	U3	U4	U5	U7	U6	U8	U9	U10.11	U13	U14	U15.51	U16.22.23.52	U17	U18.25.26.36 46.	U19.57.65	U20.31	U21	U27	U28,50	U29.38.39.42. 44.49	U32
AMPEX P/N	589-934	589-813	590-572	000-146	589-592	590-448	590-601	590-556	590-295	590-442	590-620	589-818	002-945	589-933	589-828	002-953	590-328	589-820	589-816	589-815	001-024	590-473	590-771
VENDOR P/N	74LS221	74LS00	74C221	NE529	DG 301	LM310	LF 356	CD4081	14504	CD 4016	74LS86	74LS20	74LS107	74LS161	74LS166	74LS224	74LS32	74LS74	74LS10	74LS08	74C244	CD40105	74C151
VOLTAGE	+5V (16)	+5V (14)	+5V (16)	+5V(14)+12V(1)	+12V (14)	+12V (7)	+12V (7)	+5V (14)	+5V(1)+12V(16)	+12V (14)	+5V (14)	+5V (14)	+5V (14)	+5V (16)	+5V (16)	+5V (16)	+5V (14)	+5V (14)	+5V (14)	+5V (14)	+5V (20)	+5V (16)	+5V (16)
GROUND	8	7	8	10, -12V(6)	7	-12V (4)	-12V (4)	7	8	-12V (7)	7	7	7	8	8	8	7	7	7	7	10	8	8

Schematic No. 1467182H/J.
Time Code Reader/Generator
PWA, A18 (Accessory)
(Sheet 2 of 3)



NOTES: UNLESS OTHERWISE SPECIFIED:
1. ALL RESISTANCE VALUES ARE IN OHMS, 1/4W, 5%.
2. ALL CAPACITANCE VALUES ARE IN MICROFARADS.
3. ALL DIODES ARE P/N 013-599.
4. THIS SCHEMATIC REFLECTS PWA 1467180-10.

REFERENCE DESIGNATION	
LAST USED	NOT USED
C88	C46,61
CR3	
DS1	
E21	
FL3	
J7	
L3	
Q10	
R107	R11,13,75
TP13	
TPG4	
U78	
P2	
RN1	

Schematic No. 1467182H/J.
Time Code Reader/Generator
PWA, A18 (Accessory)
(Sheet 3 of 3)

ITEM NO.	PART NUMBER	E	DESCRIPTION	REF DESIG	-01	-02	-03	-04
1								
2								
3	1467205	SCHEMATIC			(-)	(B)	(C)	(D)
4								
5	103307-02	SPACER		REF:R44	1	2	2	2
6	1400004-01	EJECTOR, PWB			1	1	1	1
7	1467008-BD	LABEL			1	1	1	1
8	1467009-01	SHIELD			1	1	1	1
9								
10	1467443	REM - 1	EPROM, (27128A)	U13 ⊳1	-02	-	-	-
11	1467445	CONTROL - 1	(27256)	U41	-01	-	-	-
12	1467446	- 2		U49	-01	-	-	-
13	1467447	- 3		U61	-01	-	-	-
14	1467448	CONTROL - 4	EPROM, (27256)	U71 ⊳1	-01	-	-	-
15								
16								
17	064-303	CAPACITOR, CER., MONO., .047uF, 100V, 20%		C56	1		1	1
18	064-652	CAPACITOR, CER., MONO., .01uF, 50V, 20%		C5,24,27,28,35	5	5	5	5
19	064-653	CAPACITOR, CER., MONO., .1uF, 50V, 20%		C1-4,6,9-12, 14-20,22,23, 26,29-32,34, 37-52,54,55	44	42	42	42
20								
21	037-164	CAPACITOR, TANT., 1uF, 35V, 10%		C7,8,57	3	3	3	3
22	037-186	CAPACITOR, TANT., 120uF, 10V. 10%		C53	1	1	1	1
23	037-472	CAPACITOR, TANT., 4.7uF, 10V, 10%		C13	1	-	-	-
24	037-749	CAPACITOR, TANT., 68uF, 15V, 10%		C25	1	1	1	1
25								
26	013-599	DIODE, SWITCHING, CD458		CR8	1	1	-	-
27	013-871	DIODE, HI VOLTAGE, 1N4006		CR1-7	6	7	7	7
28								
29	013-172	DIODE, ZENER, 4.3V, 1N749A		VR3	1	1	1	1
30	013-257	DIODE, ZENER, 6.2V, 1N753A		VR2	1	1	-	-
31								
32								
33	051-770	FERRITE-CHOKE		FL1,2	2	2	2	2
34								
35	595-022	HYBRID CIRCUIT, OSC. 4 MHZ & 8 MHZ, +0.0%, -0.02%		U26	1	1	1	1
36	595-003	HYBRID CIRCUIT, 2.4576MHZ, K1100A		U54	1	1	1	1

LM-140/203

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467203 SHEET 2 OF 5	REV E

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04
37	000-026	INTEGRATED CIRCUIT, 74LS541	U22,51,64,7,	3	4	4	4
38	000-072	74LS367	U27	1	1	1	1
39	000-122	MC1413 (ULN2003A)	U12,35,44	3	3	3	3
40							
41							
42	001-042	DS3692	U14,38,46	3	3	3	3
43	001-043	CD4011B ⟨1⟩	U76	1	1	1	1
44	001-054	74LS21	U29	1	1	1	1
45	001-065	Z80A-P10 ⟨1⟩	U42,67	2	2	2	2
46	001-894	Z8400A, Z80A-CPU	U39,45	2	2	2	2
47	001-906	Z8038, Z-F10-FIFO	U68	1	1	1	1
48	001-908	RAM, TC5517APL ⟨1⟩	U36	4	4	1	1
49	001-952	Z80A-DART	U55	1	1	1	1
50	002-995	4029 ⟨1⟩	U52,65	2	2	2	2
51	003-009	MK48Z02-25 ⟨1⟩	U48,60,70			3	3
52							
53	589-813	74LS00	U8,74	2	2	2	2
54	589-814	74LS04	U18,59,75	3	3	3	3
55	589-815	74LS08	U1,19,23	3	3	3	3
56	589-816	74LS10	U7	1	1	1	1
57	589-818	74LS20	U58	1	1	1	1
58	589-820	74LS74	U9,21	2	2	2	2
59	589-821	74LS85	U66	1	1	1	1
60	589-823	74LS138	U56,73	2	2	2	2
61	589-827	74LS164	U15	1	1	1	1
62	589-934	74LS221	U10	1	1	1	1
63							
64							
65	590-193	9637A	U24,25,37	3	3	3	3
66	590-244	Z80A-CTC ⟨1⟩	U50,62,72	3	3	3	3
67	590-319	74LS157	U4,5	2	2	2	2
68	590-328	74LS32	U16	1	1	1	1
69	590-332	74LS02	U6	1	1	1	1
70	590-335	74LS273	U53	1	1	1	1
71	590-495	74LS14	U30	1	1	1	1
72	590-510	CD4010B ⟨1⟩	U31	1	1	1	1
73	590-579	75452B	U32,33	2	2	2	2
74	590-586	74LS374	U11,34,43	3	3	3	3
75	590-593	CD4071B ⟨1⟩	U57	1	1	1	1
76	590-615	74LS139	U2,3,47,69	4	4	4	4
77	590-620	74LS86	U20	1	1	1	1
78	590-789	CD4049B ⟨1⟩	U17	1	1	1	1
79	590-84,	INTEGRATED CIRCUIT, 74LS245	U63	1	1		1
80							
81							

LM-1467203

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467203 SHEET 3 OF 5	REV E

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04
82							
83							
84	581-834	L.E.D., GREEN	DS1,2	2	2	2	2
85	581-869	L.E.D., YEL	DS3-6	4	4	4	4
86							
87							
88							
89							
90	066-663	RESISTOR, C.F., 220 OHMS, .25W, 5%	R1,2,6,7,12,13	6	6	6	6
91	066-665	1K	R56,62	4	[illegible]	2	2
92	066-666	2.7K	R8	1	1	1	1
93	066-667	3K	R54	1	1	1	-
94	066-668	4.7K	R35,43	2	2	2	2
95	066-717	47K	R57,58	2	2	2	2
96	066-812	100	R10	1	1	1	1
97	066-826	2K	R50	1	1	1	1
98	066-833	56K	R5,11	2	2	2	2
99	066-838	330	R65	1	1	1	1
100	066-849	100K	R32,33,34,60	4	4	4	4
101	066-873	20K	R28,29,30	3	3	3	3
102	066-830	10K	R3,4,9,31,36, 45-49,55,59,61	14	14	13	13
103	066-842	RESISTOR, C.F., 5.1K OHMS, .25W, 5%	R14,15,18,19,21, 22,37,38,41,42	10	10	10	10
104	076-004	RESISTOR, C.F., 180 OHMS, .25W, 5%	R16,17,20,39,40	5	5	5	5
105							
106							
107							
108	066-597	RESISTOR, M.F., 1.43K OHMS, .125W, 1%	R63	1	1	1	-
109	066-925	RESISTOR, M.F., 22.1K OHMS, .125W, 1%	R64	1	1	1	-
110							
111	039-269	RESISTOR, NETWORK, 2.2K OHMS	RN2	1	1	1	1
112	039-323	RESISTOR, NETWORK, 10K OHMS	RN1,3,4,5	3	4	4	4
113							
114	043-450	RESISTOR, W.W., 470 OHM, 3W, 3%	R44	1	1	1	1
115							
116	119-492	SWITCH, DIP, 8 X SPST	S7		1	1	1
117	014-652	TRANSISTOR, 2N3906 (PNP)	Q5,6	3	3	2	2
118	580-647	TRANSISTOR, 2N3904 (NPN)	Q2,7	2	2	1	-
119	579-018	TRANSISTOR, FET, VN10KM	Q3,4	2	2	2	2
120							
121							
122							
123	080-055	BATTERY, NICAD, 3.6V	BT1	1	1	1	-
124	090-245	TEST JUMPER (NOP)	J8,9,10	3	3	1	3
125							

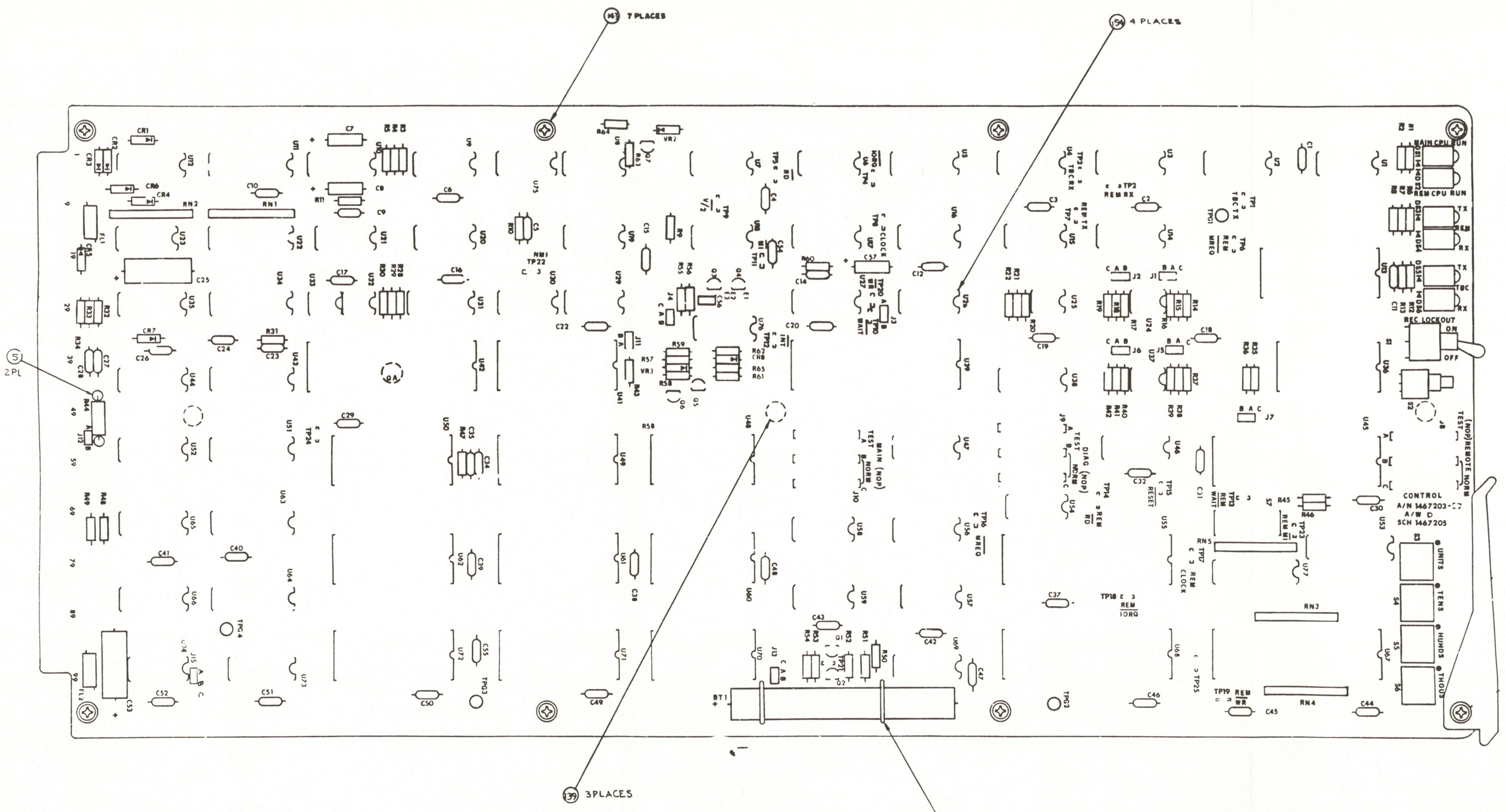
LM-1467203

AMPEX | Ampex Corporation REDWOOD CITY, CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467203 SHEET 4

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NO. -01	-02	-03	-04
126	119-523	SWITCH, ROTARY, BCD (MACH I.D.)	S3-6	4	4	4	4
127	119-907	SWITCH, PUSHBUTTON, SPDT (SYSTEM RESET)	S2	1	1	1	1
128	120-967	SWITCH, TOGGLE, SPDT (RECORD LOCKOUT)	S1	1	1	1	1
129							
130							
131							
132	140-437	JACK, SHORTING	J1-7,11,12,15	10	11	10	10
133							
134	155-005	SOCKET, 8 POSITION	REF:J8(A,B,C) J9(A,B,C),J10(A,B,C)	9	9	9	9
135							
136	187-254	TERMINAL STRIP, POST, WIREWRAP	REF:J1-7,11,12,15	27	30	27	27
137	187-259	TERMINAL PC, TEST POINT	TP1-20,22-25	25	25	24	24
138							
139	250-155	BUMPER, PAD, SYNTHETIC RUBBER		3	3	3	3
140	283-105	SPACER, PLAIN, .140 ID X .250 OD X .125 LG		1	1	1	1
141	302-395	STRAP, CABLE, MOUSE TAIL	REF:BT1	2	2	-	-
142	471-063	SCREW, MACH, PAN HD., XREC, 4-40 X .438		1	1	1	1
143	474-500	SCREW, MACH, PAN HD., XREC, 4-40 X .312		7	7	7	7
144							
145	502-002	WASHER, LOCK #4		1	1	1	1
146	506-011	WASHER, BOWED		1	1	1	1
147							
148	582-134	INTEGRATED CIRCUIT, MTG. HDW., SOCKET, 16 POS	U12,44	2	2	2	2
149	582-415	INTEGRATED CIRCUIT, MTG. HDW., SOCKET, 40 POS	U39,42,45, 55,67,68	6	6	6	6
150	582-413	INTEGRATED CIRCUIT, MTG. HDW., SOCKET, 24 POS	U36	5	4	1	1
151	582-281	INTEGRATED CIRCUIT, MTG. HDW., SOCKET, 28 POS	U50,62,72	3	-	-	-
152	582-414	INTEGRATED CIRCUIT, MTG. HDW., SOCKET, 28 POS	U13,41,49,50, 61,62,71,72	5	8	8	8
153							
154	582-417	STRIP, INSULATOR	REF:U26,54	4	4	4	A/R
155	615-002	WIRE, SOLID, UNINSULATED, 22 AWG			A/R	A/R	A/R
156	1467443-04	REM-1 EPROM (27128A) ⟨1⟩	U13		-	1	-
157	1467443-03	REM-1 EPROM, (27128A) ⟨1⟩	U13		1	-	-
158	1467445-01	CONTROL-1 EPROM, (27256)	U41		1	1	-
159	1467446-01	CONTROL-2 EPROM, (27256)	U49		1	1	-
160	1467447-01	CONTROL-3 EPROM, (27256)	U61		1	1	-
161	1467448-01	CONTROL-4 EPROM, (27256) ⟨1⟩	U71		1	1	-
162	1467625-01	KIT, FIRMWARE					REF

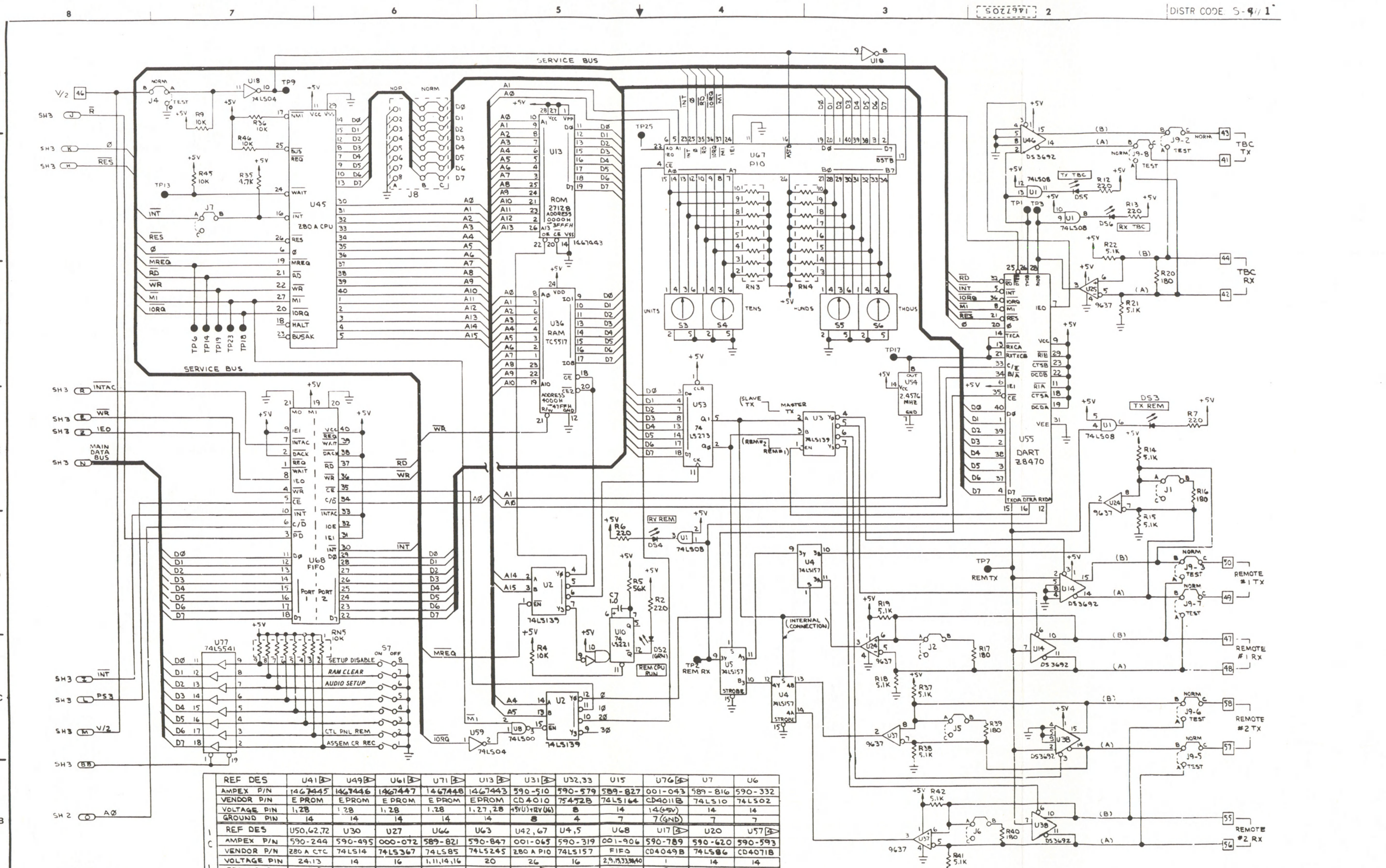
NOTES

⟨1⟩ STATIC SENSITIVE, SPECIAL HANDLING REQUIRED PER AMPEX STD HE1-1.



COMPONENT SIDE

Assembly No. 1467203-04E.
Control PWA, A20



REF DES	U41 ④	U49 ④	U61 ④	U71 ④	U13 ④	U31 ④	U32,33	U15	U76 ④	U7	U6	
AMPEX P/N	1467445	1467446	1467447	1467448	1467443	590-510	590-579	589-827	001-043	589-816	590-332	
VENDOR P/N	EPROM	EPROM	EPROM	EPROM	EPROM	CD4010	75452B	74LS164	CD4011B	74LS10	74LS02	
VOLTAGE PIN	1,28	1,28	1,28	1,28	1,27,28	+5V(U)+12V(U6)	8	14	14(+5V)	14	14	
GROUND PIN	14	14	14	14	14	8	4	7	7(GND)	7	7	
REF DES	U50,62,72	U30	U27	U66	U63	U42,67	U4,5	U68	U17 ④	U20	U57 ④	
AMPEX P/N	590-244	590-495	000-072	589-821	590-847	001-065	590-319	001-906	590-789	590-620	590-593	
VENDOR P/N	Z80 A CTC	74LS14	74LS367	74LS85	74LS245	Z80 A PIO	74LS157	FIFO	CD4049B	74LS86	CD4071B	
VOLTAGE PIN	24,13	14	16	1,11,14,16	20	26	16	2,9,19,33,38,40	1	14	14	
GROUND PIN	5 ④	7	1,8,15	8,9	10,19	11 ④	8	20,21	8	7	7	
REF DES	U11,34,43	U54	U24,25,37	U53	U26	U55	U39,45	U16	U52,65	U48,60,70	U58	
AMPEX P/N	590-586	595-003	590-193	590-335	595-022	001-952	001-894	590-328	002-995	003-009	589-818	
VENDOR P/N	74LS374	XTAL 2.9 MHZ	9637A	74LS273	XTAL 4 MHZ	Z80A DART	Z8400ACPU	74LS32	4029	RAM	74LS20	
VOLTAGE PIN	20	14	1	20	14	9,11,18,19,22,23,29	11	14	16,9	24	14	
GROUND PIN	10	7	4	10	7	31	29 ④	7	8 ④	12 ④	7	
REF DES	U1,19,23	U10	U9,21	U29	U12,35,44	U18,75	U22,51,64,77	U2,3,47,69	U14,38,46	U8,74	U56,73	U36
AMPEX P/N	589-815	589-934	589-820	001-054	000-122	589-814	000-026	590-615	001-042	589-813	589-823	001-908
VENDOR P/N	74LS08	74LS221	74LS74	74LS21	MC1413	74LS04	74LS541	74LS139	DS3692	74LS00	74LS138	RAM
VOLTAGE PIN	14	16	14	14	—	14	20	16	1	14	16	24
GROUND PIN	7	8	7	7	8	7	10	8	8	7	8	12

IC LIST

NOTES: UNLESS OTHERWISE SPECIFIED

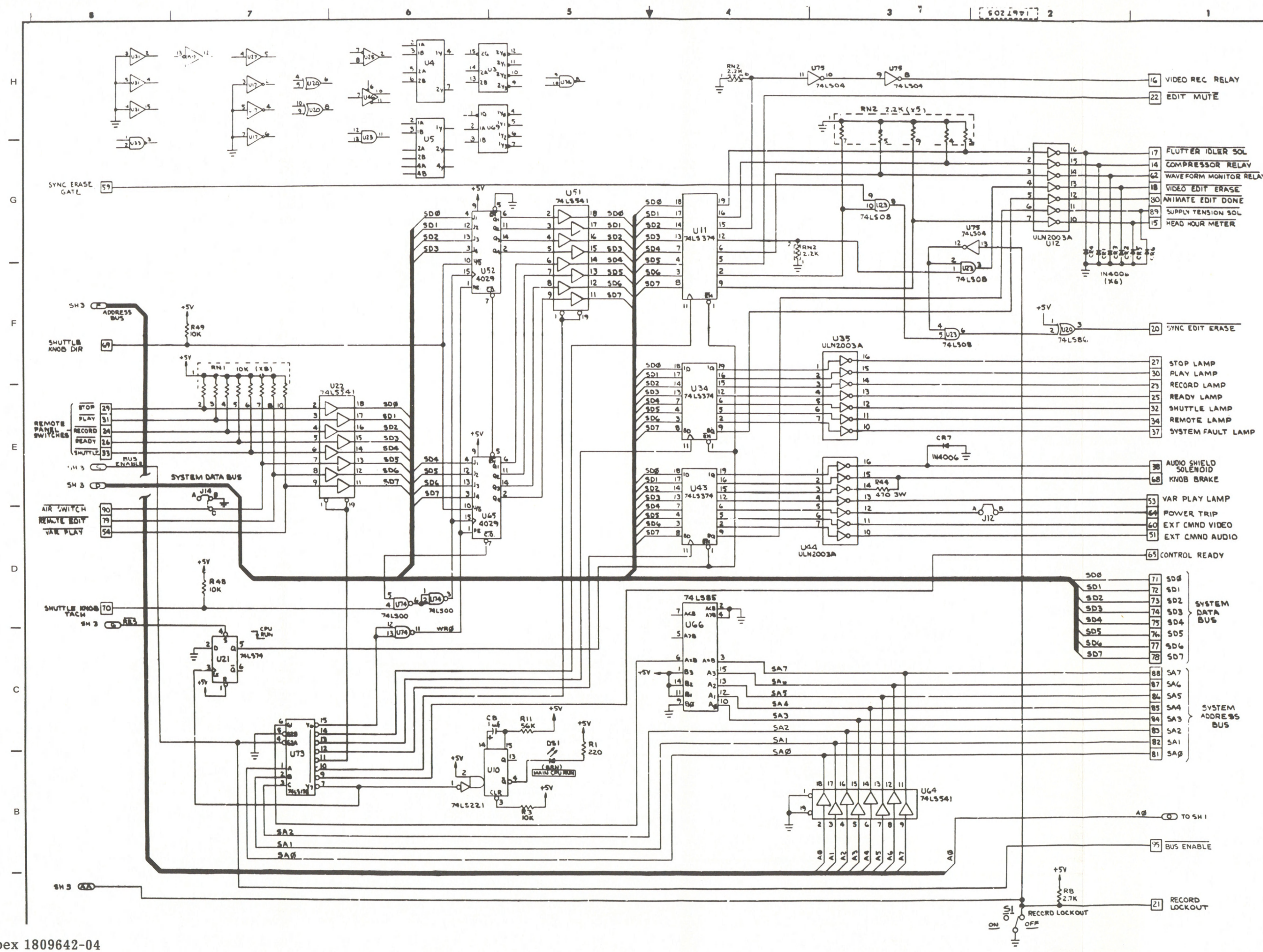
1. RESISTANCE VALUES ARE IN OHMS 1/4 W, 5%.
2. CAPACITANCE VALUES ARE IN MICROFARADS.
3. SCHEMATIC REFLECTS PWA 1467203-04

④ STATIC SENSITIVE, SPECIAL HANDLING REQUIRED PER AMPEX STD HEI-1.

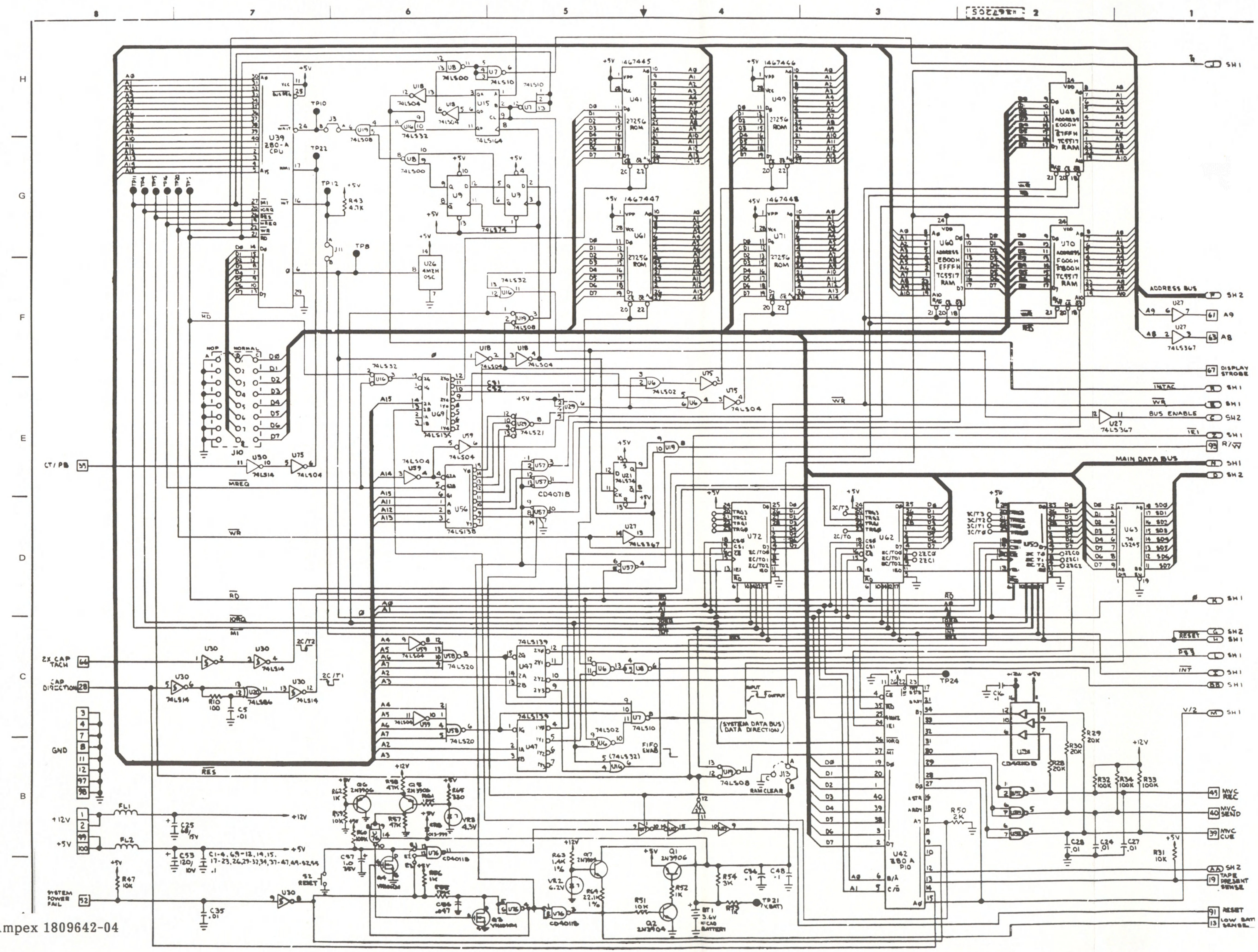
⑤ AUXILIARY CIRCUITS: COMPONENTS INSIDE DASHED LINES ARE NOT INSTALLED.

REF DES	
LAST USED	NOT USED
C57	C13,21,33,36
CR7	CR8
DS6	Q1,2,7
FL2	J13
J15	R23-27,
R65	R51-54,63,64
RN5	
S7	TP21
TP25	
TP64	
U77	U40,28
VR3	VR1,2
E3	BT1

Schematic No. 1467205D.
Control PWA, A20
(Sheet 1 of 3)



Schematic No. 1467203D.
Control PWA, A20
(Sheet 2 of 3)



Schematic No. 1467205D.
Control PWA, A20
(Sheet 3 of 3)

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04
1							
2							
3	1400227	SCHEMATIC		C	E	E	G
4							
5	1374188-01	INDUCTOR, FILTER	L1-4	4	4	4	4
6							
7	013-224	DIODE, ZENER, 6.8V	VR1,3	2	2	2	2
8	013-371	DIODE, ZENER, 13V	VR2	1	1	1	1
9	013-678	DIODE, POWER	CR1,2	2	2	2	2
10							
11	014-247	TRANSISTOR	Q1,13	2	2	2	2
12	014-505	TRANSISTOR	Q9,14	2	2	2	2
13	014-852	TRANSISTOR, MD2369A	Q2,11	2	2	2	2
14	580-784	TRANSISTOR, MM8006	Q5-8	4	4	4	4
15	580-956	TRANSISTOR, 2N3866A	Q3,4,10,12	4	4	4	4
16							
17	020-915	RELAY, 12V	K1	1	1	1	1
18							
19	030-963	CAPACITOR, CER, 0.1uF, 100V, 10%	C3,6-9,11-19, 21,22	16	16	16	16
20	064-300	CER, .022uF, 100V, 20%	C2,4,5	3	3	3	3
21	064-314	CER, 1uF, 50V, 20%	C1	1	1	1	1
22	069-090	CAPACITOR, POLY, .001uF, 50V	C10,20	2	2	2	2
23							
24	066-834	RESISTOR, C.F., 33 OHM, 1/4W, 5%	R1,24,32,35	4	4	4	4
25	066-938	47 OHM,	R22,48	2	2	2	2
26	066-811	51 OHM,	R18,19	2	2	2	2
27	066-859	240 OHM,	R17,25,26,36,37	5	5	5	5
28	066-818	470 OHM	R28,38-44,50,51	10	10	10	10
29	066-827	3.9K OHM	R20,53	2	2	2	2
30	066-718	5.6K OHM	R10,14	2	2	2	2
31	066-828	4.3K OHM	R7	1	1	1	1
32	066-711	7.5K OHM	R12,31,52	3	3	3	3
33	066-826	2K OHM	R2	1	1	1	1
34	066-667	3K OHM	R23,49	2	2	2	2
35	066-830	10K OHM	R6	1	-	-	-
36	066-665	1K OHM	R55,56	2	-	-	-
37	066-717	RESISTOR, C.F., 47K OHM, 1/4W, 5%	R3,9	2	2	2	2

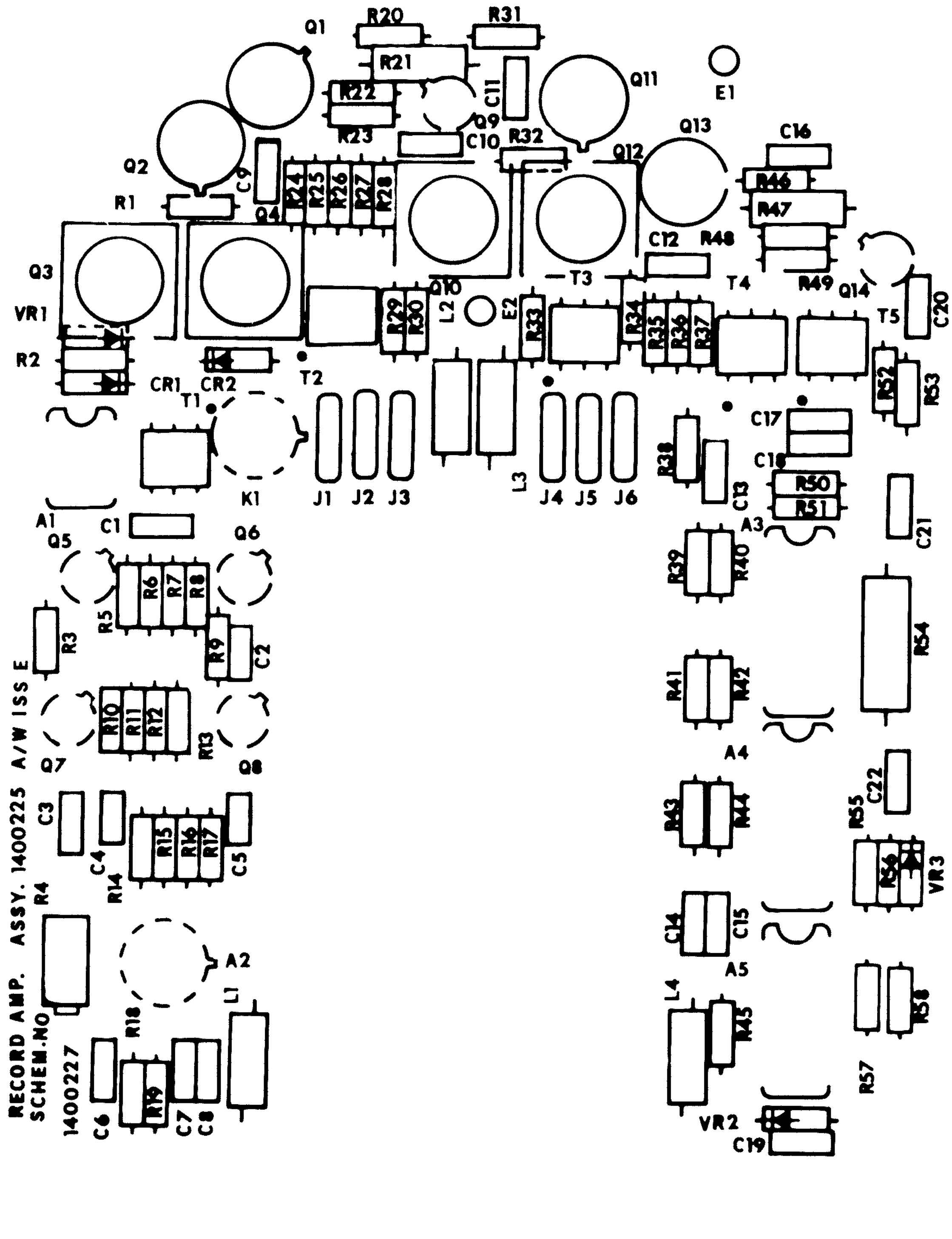
AMPEX | Ampex Corporation, Redwood City, California | CODE IDENT NO **92739** | LIST OF MATERIALS | LM-[illegible] SHEET 2 | T

ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02	-03	-04
38	066-824	RESISTOR, C.F., 1.5K OHM, 1/4W, 5%	R46,27	2	2	2	2
39							
40	041-433	RESISTOR, COMP, 27 OHM, 1/2W, 5%	R21,47	2	2	2	2
41							
42	041-829	RESISTOR, COMP, 75 OHM, 1W, 5%	R54	1	1	1	1
43							
44	058-651	RESISTOR, VAR, 2K OHM	R4	1	1	1	-
45	058-567	RESISTOR, VAR., 2K OHM, 1/2W, 10%	R4				1
46	076-072	RESISTOR, M.F., 35.7 OHM, 1/8W, 1%	R29,30,33,34	4	4	4	4
47	062-860	↕ ↕ 133 OHM, ↕	R45	1	1	1	1
48	062-932	↕ ↕ 1.5K OHM, ↕	R11,13,15,16	4	4	4	-
49	066-160	RESISTOR, M.F., 6.04K OHM, 1/8W, 1%	R5,8	2	2	2	2
50	062-916	RESISTOR, M.F. 750 OHM, 1/8 w, 1%	R15, 16				2
51	062-932	RESISTOR, M.G., 1.5K OHM, 1/8 w, 1%	R11, 13				2
52	590-579	INTEGRATED CIRCUIT, 75452 ▷1	A1	1	1	1	1
53	587-106	↕ ↕ NE592K	A2	1	1	1	1
54	590-325	↕ ↕ MC10131 ▷1	A3	1	1	1	1
55	590-543	↕ ↕ MC10116 ▷1	A4	1	1	1	1
56	590-585	INTEGRATED CIRCUIT, 75460 ▷1	A5	1	1	1	1
57	560-471	TRANSFORMER, RF, MCL, T1-1T	T1	1	1	1	-
58	570-435	TRANSFORMER, RF, MCL, T4-1T	T2-5	4	4	4	4
59	560-519	TRANSFORMER, RF, MCL, T3-1T	T1				1
60	280-180	MOUNTING PAD, TRANSISTOR,	REF: Q1,3,4,10, 12,13	6	6	6	6
61	280-130	MOUNTING PAD, TRANSISTOR	REF: Q7-9,14	4	4	4	4
62							
63	014-613	HEATSINK	REF:Q3,4,10,12	4	4	4	4
64							
65	087-388	COMPOUND, HEATSINK	REF:Q3,4,10,12	A/R	A/R	A/R	A/R
66							
67	167-429	CONTACT, SOCKET, P.C.	REF: J1-6	6	6	6	6
68	CD726	SLEEVING, SHRINK, CLEAR	REF: FL1-3	A/R	A/R	A/R	A/R
69	932-035	FERRITE BEAD	REF: Q5,6	2	2	2	2
70	066-830	RESISTOR, CF, 10K OHM, 1/4W, 5%	R6,58		2	2	2
71	066-665	RESISTOR, CF, 1K OHM, 1/4W, 5%	R55-57		3	3	2

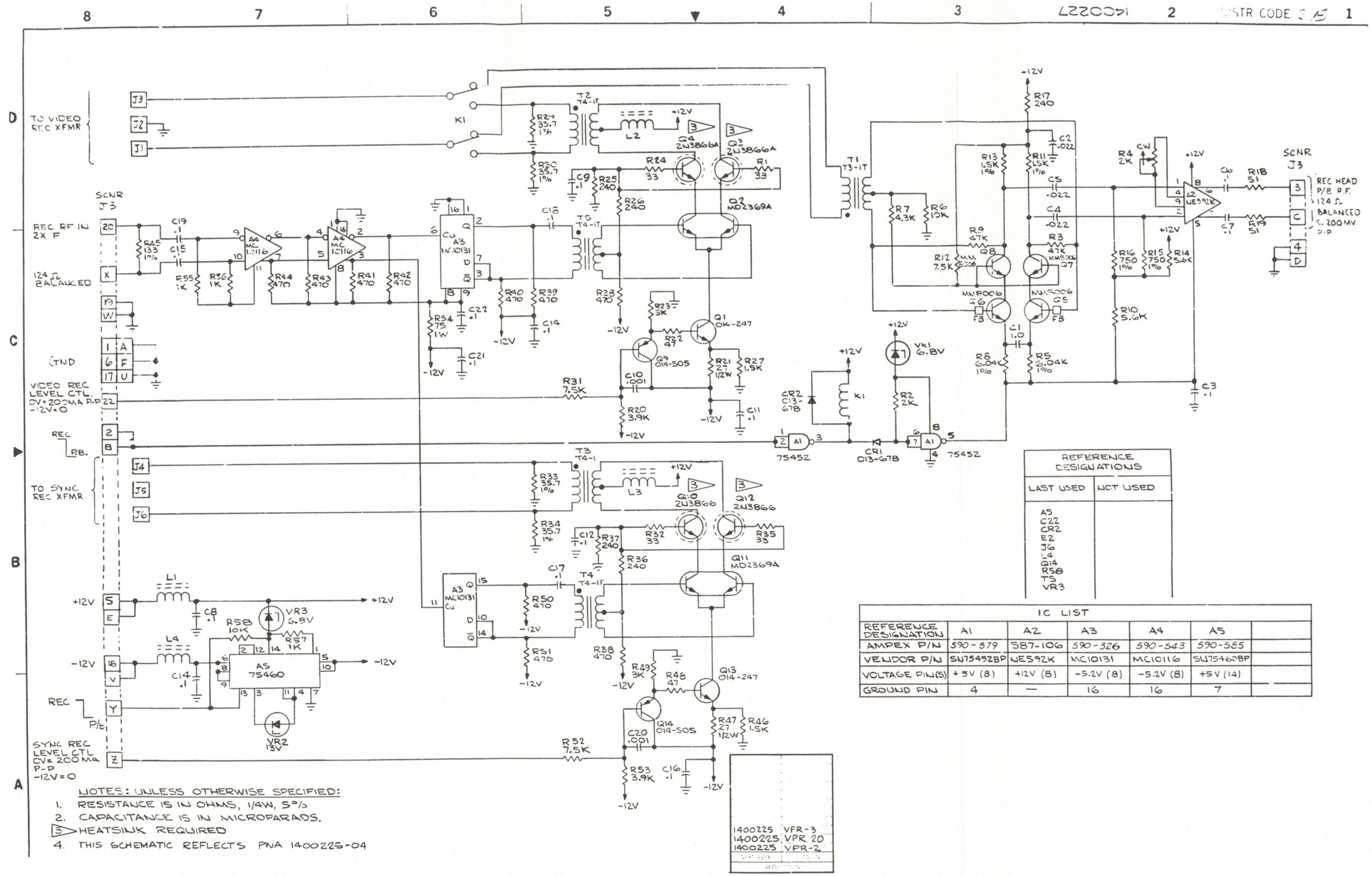
NOTES:

▷1 INDICATES PRESTRESSED I.C.'S

LM-1[illegible]



Assembly No. 1400225-04T. Record Amplifier PWA, Sync



REFERENCE DESIGNATIONS	
LAST USED	NOT USED
A5 C22 CR2 E2 J6 L4 Q14 R58 T5 VR3	

IC LIST

REFERENCE DESIGNATION	A1	A2	A3	A4	A5
AMPEX P/N	590-579	587-106	590-326	590-543	590-585
VENDOR P/N	SN75452BP	NE592K	MC10131	MC10116	SN75460BP
VOLTAGE PIN(S)	+5V (8)	+12V (8)	-5.2V (8)	-5.2V (8)	+5V (14)
GROUND PIN	4	—	16	16	7

Schematic No. 1400227G.
Record Amplifier Sync PWA

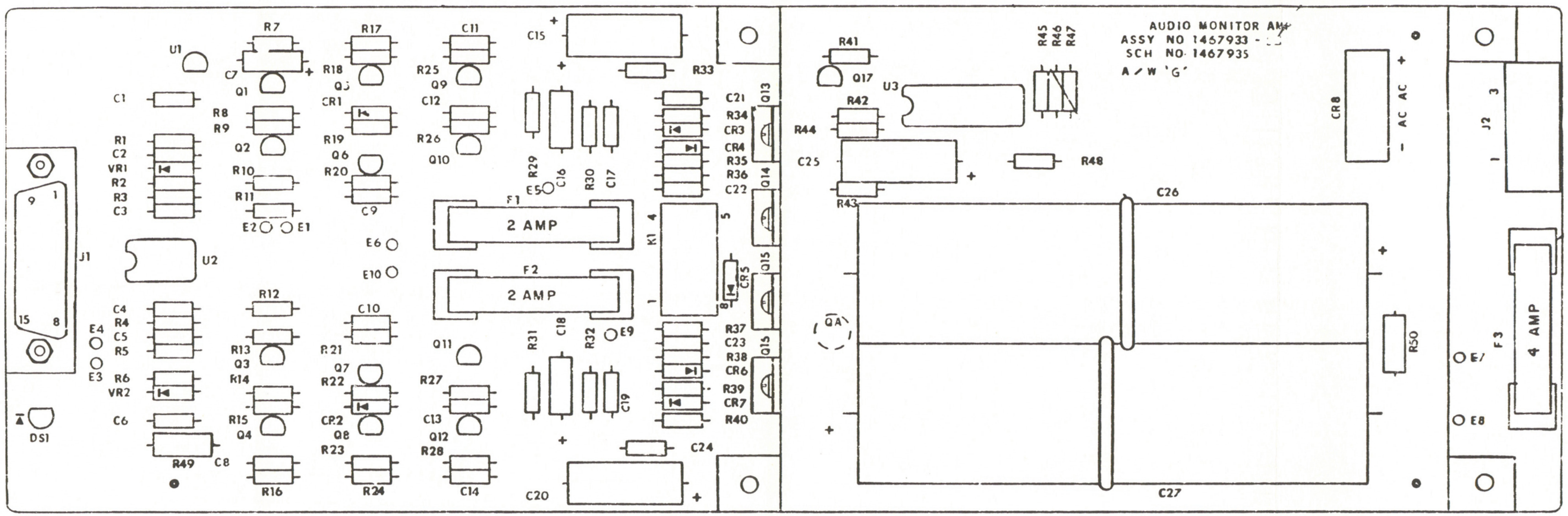
ITEM NO.	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02
1					
2					
3	1467935	SCHEMATIC		A	B
4	1467936-01	HEATSINK, AUDIO HI FIDELITY		1	1
5					
6	064-684	CAPACITOR, CER., MONO, 100pF, 50V, 1%	C11,14	2	2
7	064-682	220pF,	C9,10	2	2
8	064-790	470pF, 1%	C2,5	2	2
9					
10	064-845	.047uF, 10%	C1,3,4,6, 8,12,13,21, 22,23,24	11	11
11	064-848	CAPACITOR, CER., MONO, .082uF, 50V, 10%	C17,19	2	2
12					
13					
14	037-164	CAPACITOR, TANT, 1.0uF, 35V, 10%	C16,18	2	2
15	037-181	47uF, 35V	C15,20	2	2
16	037-728	6.8uF, 6V	C7	1	1
17	037-748	56uF, 20V	C25	1	1
18	063-446	CAPACITOR, TANT, 4200uF, 40V, 10%	C26,27	2	2
19					
20	581-290	DIODE, ZENER, IN4744A, 15V	VR1,2	2	2
21	013-678	DIODE, POWER RECTIFIER, 600V	CR3,4,6,7	4	4
22	013-599	DIODE, SWITCHING, IN4148	CR1,2,5	3	3
23	581-111	DIODE, MDA970A-2	CR8	1	1
24	581-567	L.E.D., VISIBLE, RED	DS1	1	1
25	070-042	FUSE CARTRIDGE, FAST BLOW, ¼ AMP, 250V	F3	1	-
26	070-016	FUSE CARTRIDGE, FAST BLOW, 2 AMP, 250V	F1,2	2	-
27					
28					
29	000-078	INTEGRATED CIRCUIT, TL430	U1	1	1
30					
31	587-938	CA3096	U3	1	1
32	589-424	INTEGRATED CIRCUIT, TL072	U2	1	1
33	020-156	RELAY, GENL, PURPOSE, 26.5V	K1	1	1
34	041-015	RESISTOR, C.C., 27K OHMS, .5W, 5%	R50	1	1
35	041-239	RESISTOR, C.C., 2.2K OHMS, .5W, 5%	R49	1	1
36					

LM-1467933

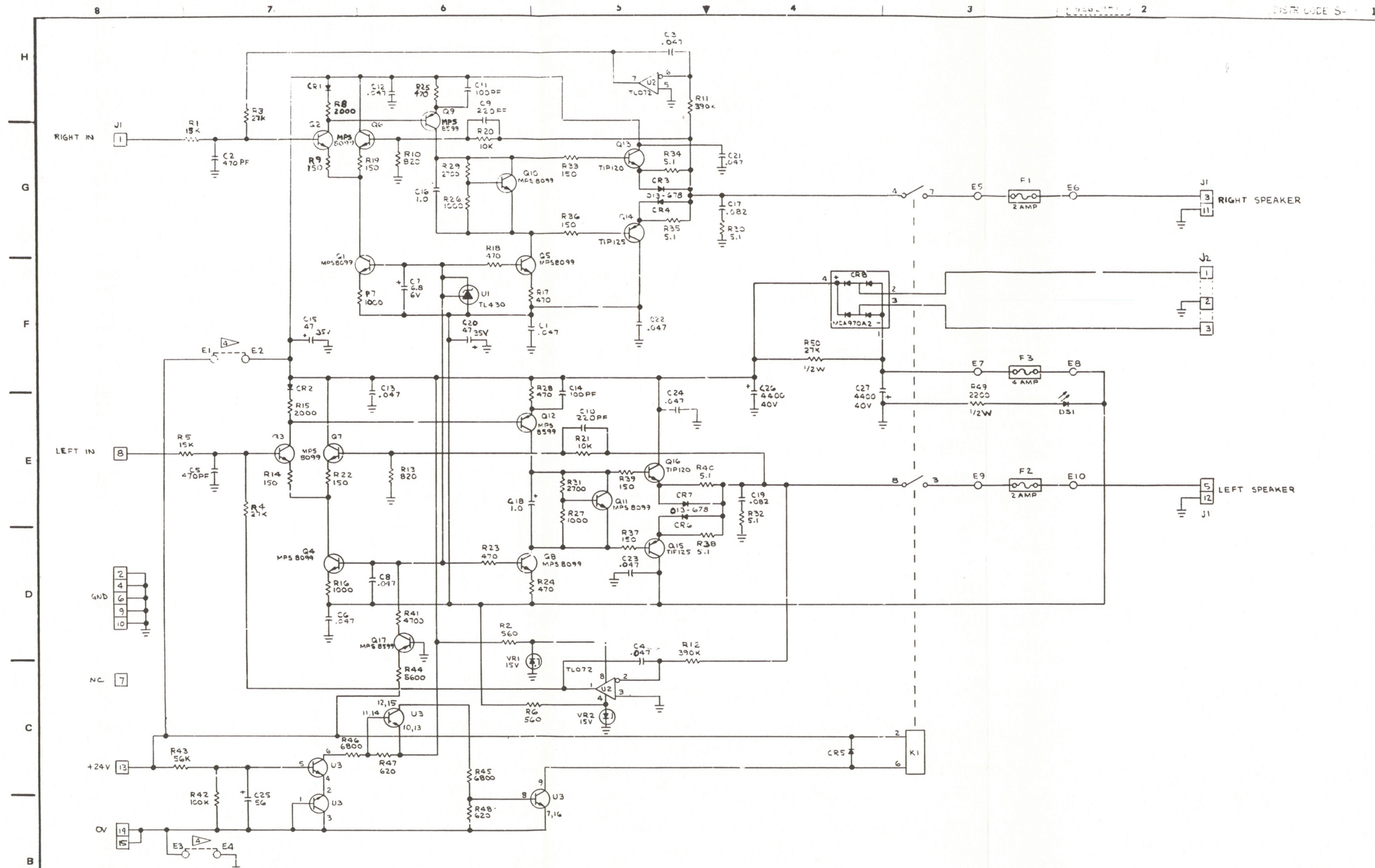
AMPEX | Ampex Corporation REDWOOD CITY CALIFORNIA	CODE IDENT NO 92739	LIST OF MATERIALS	LM-1467933 SHEET 2 OF 2	REV J

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	-01	-02
37					
38	066-665	RESISTOR, C.F., 1.0K OHMS, .25W, 5%	R7,16,26,27	4	4
39	066-666	2.7K	R29,31	2	2
40	066-668	4.7K	R44	1	1
41	066-718	5.6K	R41	1	1
42	066-813	150	R9,14,19,22, 33,36,37,39	8	8
43	066-818	470	R17,18,23, 24,25,28	6	6
44	066-819	620	R47,48	2	2
45	066-821	820	R10,13	2	2
46	066-826	2.0K	R8,15	2	2
47	066-829	6.8K	R45,46	2	2
48	066-830	10K	R20,21	2	2
49					
50	066-849	100K	R42	1	1
51	066-856	15K	R1,5	2	2
52	066-866	27K	R3,4	2	2
53					
54					
55	076-028	RESISTOR, C.F., 5.1 OHMS, .25W, 5%	R30,32,34, 35,38,40	6	6
56	066-839	RESISTOR, C.F., 560 OHMS, .25W, 5%	R2,6	2	2
57	076-053	RESISTOR, C.F., 390K OHMS, .25W, 5%	R11,12	2	2
58	066-833	RESISTOR, C.F., 56K OHMS, .25W, 5%	R43	1	1
59					
60	167-077	CONNECTOR PART, KIT, FEMALE SCREWLOCK	REF:J1	1	1
61	140-735	CONNECTOR, SIGNAL CIRCUIT, RECPT, 15 PINS	J1	1	1
62	140-753	CONNECTOR, SIGNAL CIRCUIT, RECPT, 3 POS	J2	1	1
63	580-825	TRANSISTOR, MPS8599	Q9,12,17	3	3
64	580-873	TRANSISTOR, TIP125	Q14,15	2	2
65	580-959	TRANSISTOR, TIP120	Q13,16	2	2
66	580-841	TRANSISTOR, MPS8099	Q1-8,10,11	10	10
67					
68					
69	070-399	FUSE PART, CLIP		6	6
70	280-083	SPACER, THREADED, PLAIN, #4-40 X .500 LG		2	2
71	302-542	STRAP, CABLE, "MOUSETAIL"	REF: C26,27	2	2
72	471-059	SCREW, MACH, PAN HD., #4-40 X .188 LG		4	4
73	473-325	SCREW, MACH, PAN HD., ASSEM. WASHER, #4-40 X .312 LG		2	2
74	615-154	WIRE, SOLID, INSULATED, 30 AWG, GRN		A/R	-
75	501-976	WASHER, SHOULDER, NYLON	REF:Q13-16	4	4
76	501-169	WASHER, PLAIN, SMALL PATTERN, #4		4	4
77	502-403	WASHER, NON-METALLIC, NYLON		4	4
78	580-648	TRANSISTOR, MTG. HDW., INSULATOR, MICA	REF:Q13-16	4	-
79	582-378	TRANSISTOR MTG. HDW, INSULATOR, SILICONE RUBBER	REF:Q13-16	-	4
80					
81	020-407	RELAY PART, MOUNTING, PAD .800 LG X .400	REF:K1		1

LM-1467933



Assembly No. 1467933-02J.
Audio Monitor Amplifier PWA, (Accessory)



NOTES: UNLESS OTHERWISE SPECIFIED.

1. RESISTANCE VALUES ARE IN OHMS, 1/4W, 5%.
2. CAPACITANCE VALUES ARE IN MICROFARADS.
3. THIS SCHEMATIC REFLECTS PWA 1467933-01

4 JUMPER FOR VPR-80 USE ONLY.

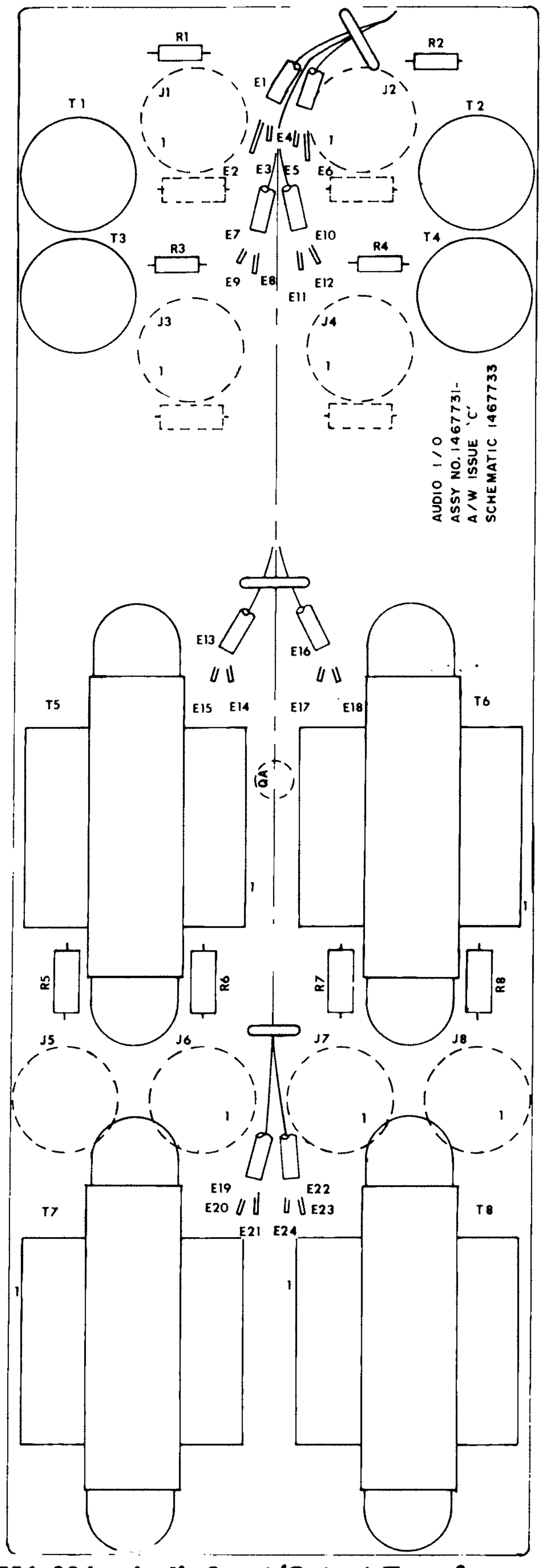
REFERANCE DESIGNATION	
LAST USED	NOT USED
C27 CR8 DS1 F3 J2 Q16 VR2 R50 E10	

I.C. LIST	U1	U2	U3
REF DES	U1	U2	U3
AMPEX PN.	000-078	589-424	587-938
VENDOR PN	TL430C	TL072	CA3096AE
VOLTAGE (PIN)	—	+12V (8) -12V (4)	—
GROUND (PIN)	—	—	—

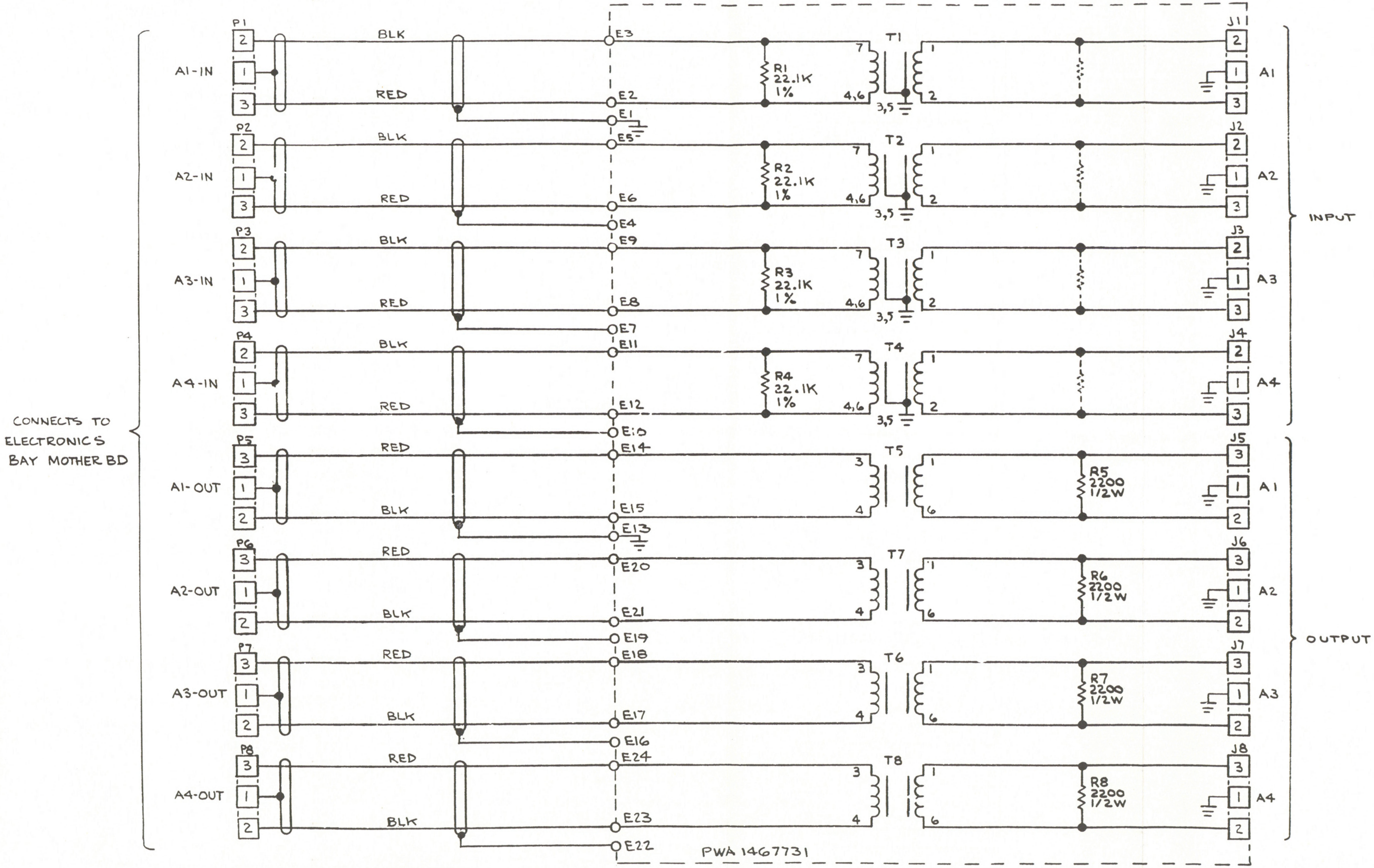
Schematic No. 1467935B.
Audio Monitor Amplifier PWA

ITEM NO	PART NUMBER	DESCRIPTION	REF DESIG	QTY REQD PER DASH NUMBER -01	-02
1					
2					
3	1467733	SCHEMATIC		(+)	A
4					
5	1467734-01	TRANSFORMER	T5-8	4	4
6	560-520	TRANSFORMER	T1-4	4	-
7	560-526	TRANSFORMER	T1-4	-	4
8	041-239	RESISTOR, C.C., 2.2K OHMS, .5W, 5%	R5-8	4	4
9					
10	066-925	RESISTOR, C.F., 2.21K OHMS, .125W, 1%	R1-4	4	4
11					
12	140-667	AUDIO CONN., FEMALE, PWB MOUNT	J1-4	4	4
13	140-670	AUDIO CONN., MALE, PWB MOUNT	J5-8	4	4
14					
15					
16					
17	475-085	SCREW, MACH, PAN HD., XREC DR., #6-32 X .312 LG		8	8
18					
19					
20					
21					
22					
23					
24					
25	498-642	NUT, CLINCH, #6		8	8
26					
27					
28					
29					
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37					

LM-1467731



Assembly No. 1467731-02A. Audio Input/Output Transformer PWA (Accessory)



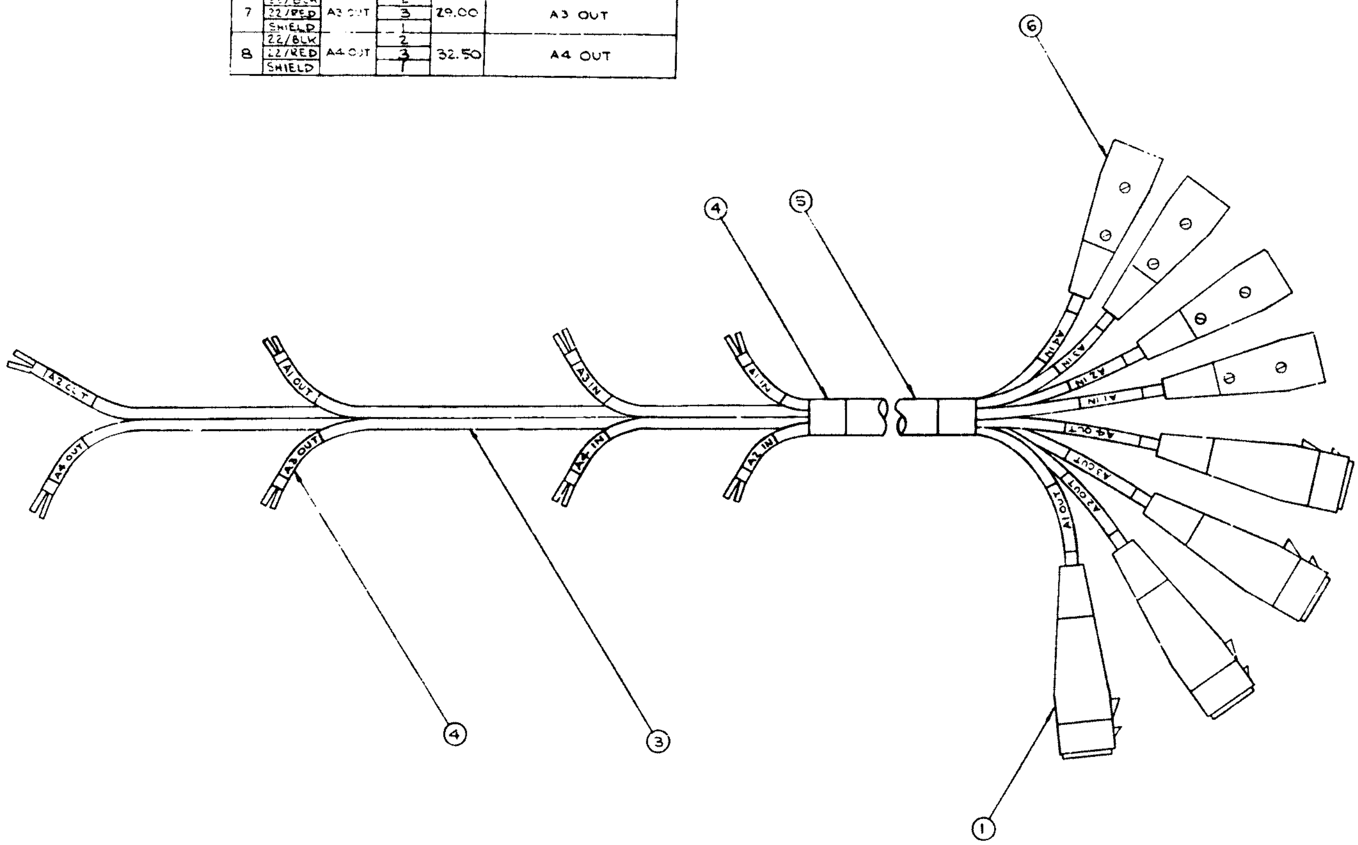
REFERENCE DESIGNATION	
LAST USED	NOT USED
E24 J8 P8 R8 T8	

NOTES: UNLESS OTHERWISE SPECIFIED:

1. ALL RESISTANCE VALUES ARE IN OHMS, 1/4W, 5%.
2. THIS SCHEMATIC REFLECTS ASSY 1467731-02.

Schematic No. 1467733A.
Audio Input/Output Transformer PWA

WIRE ROUTING LIST					
WIRE NO	GAUGE/ COND	TO		LENGTH ±.25	REMARKS
		REF DES	TERM		
1	22/BLK	A1 IN	2	25.00	MARK EACH END OF CABLE WITH REF DESIG: A1 IN
	22/RED		3		
	SHIELD		1		
2	22/BLK	A2 IN	2	25.00	A2 IN
	22/RED		3		
	SHIELD		1		
3	22/BLK	A3 IN	2	26.50	A3 IN
	22/RED		3		
	SHIELD		1		
4	22/BLK	A4 IN	2	26.50	A4 IN
	22/RED		3		
	SHIELD		1		
5	22/BLK	A1 OUT	2	29.00	A1 OUT
	22/RED		3		
	SHIELD		1		
6	22/BLK	A2 OUT	2	32.50	A2 OUT
	22/RED		3		
	SHIELD		1		
7	22/BLK	A3 OUT	2	29.00	A3 OUT
	22/RED		3		
	SHIELD		1		
8	22/BLK	A4 OUT	2	32.50	A4 OUT
	22/RED		3		
	SHIELD		1		



-02	-01	ITEM NO	PART NUMBER	DESCRIPTION
4		6	145-009	AUDIO, CONN, MALE, CABLE MOUNT
A/R	A/R	5	600-624	SLEEVING, EXPANDABLE
A/R	A/R	4		SLEEVING, SHRINK
A/R	A/R	3	616-283	CABLE, SHIELDED, 2 COND.
–	4	2	144-009	AUDIO, CONN, MALE, CABLE MOUNT
4	4	1	144-003	AUDIO, CONN, FEMALE, CABLE MOUNT
PARTS LIST				

Assembly No. 1467739-02A. Audio Harness Assembly

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